Appendix D

Projects

Appendix D.1

Project Submittal and Instruction Forms

Required Project Information

Mojave Integrated Regional Water Management Plan

Forms

There are two available project forms for submitting a project –

1. A **short form** used for a conceptual project idea or a project not fully developed yet.
2. A **long form** used for a more defined project that has gone through stages of planning and design and is ready for construction or implementation.

Project proponents can fill out the appropriate form of their choice and must provide as much of the project information requested in the form as possible. The information will be reviewed by the Project Team using the screening process outlined during the June 6 meeting (see link below). Project proponents are expected to collect and assemble project-specific information for projects to be considered for inclusion in the Mojave Region IRWM Plan Update.

It is acceptable if not all of the blanks are filled in on either form but the proponent should try to complete as many as possible to allow the reviewers to make appropriate screening decisions in a timely manner.

Integration Highly Recommended

We highly recommend that those submitting new projects (or updating an existing IRWM Plan project) look for and review other projects in the Region to see if there are opportunities to team up and create an integrated and multipurpose project. Contact the Mojave website (www.mywaterplan.com) for help in finding other projects that may be complementary to or supportive of your project.

2013 IRWM Plan Update - Project Review Process

All projects to be included in the 2013 IRWM Plan Update will undergo review. The draft process for project review, and the draft scoring methodology to be used for all projects can be found in Meeting #3 (June 6, 2013) Handout 2 at www.mywaterplan.com/meetings.

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:					
Project Sponsor:					
If Joint Project, Other Partners:					
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Project Description					
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)					
Project Description (1 -2 sentences):					
Project Integration (Describe how the project does or could integrate with other projects in the Region):					
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):					
Project Location					
Descriptive (Description of property location etc.):					
Latitude/Longitude - info available at: http://geocoder.us/		Lat:		Long:	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☐	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:					

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Proposed Project Long Form Instructions

Mojave Integrated Regional Water Management Plan

Please complete this project information long form as much as possible in its entirety for each separate project. Projects submitted for consideration shall be received no later than **1 August 2013** to **comments@mywaterplan.com**. The form is intended to be filled out electronically using Adobe Acrobat and then submitted via email, but can be completed by hand and then mailed to Mojave Water Agency at the address shown on the www.mywaterplan.com website. Please note comment fields are not limited; text is preserved even if it does not appear on the form.

For questions or assistance in completing the form contact Yvonne Hester via email at yhester@mojavewater.org.

Sections 1, 2, & 3. Project Proponent, General Project Information, and Description

Please fill in all requested fields.

Project Location (Latitude and Longitude) – Can be approximated using Google Earth.

Project Location Description – Please include as much detail as possible.

Section 4. IRWM Plan Objectives Addressed

Information related to the proposed IRWM Plan objectives can be found in Meeting #3 (June 6, 2013) Handout 5 at www.mywaterplan.com/meetings Please see the list of objectives and the screening matrix on the website to help you determine how well your project addresses various criteria.

Section 5. Resource Management Strategies

A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. For example, urban water use efficiency is a strategy to reduce urban water use. A pricing policy or incentive for customers to reduce water use also is a strategy. New water storage to improve water supply, reliability, and quality is another strategy. (See Box 1-1 Resource Management Strategies and Management Objectives for alphabetical listings) (2009 California Water Plan). Further detailed descriptions of the Resource Management Strategies can be found in Volume 3 of the 2009 California Water Plan here: http://www.waterplan.water.ca.gov/cwpu2009/index.cfm. They are also included, along with three new strategies from the Draft 2013 California Water Plan, on the screening matrix.

Box 1-1 Resource Management Strategies and Management Objectives

Resource Management Strategy	Chapter No.	Management Objective
Agricultural Lands Stewardship	20	Practice Resource Stewardship
Agricultural Water Use Efficiency	2	Reduce Water Demand
Conjunctive Management and Groundwater Storage	8	Increase Water Supply
Conveyance—Delta	4	Improve Operational Efficiency and Transfers of Water
Conveyance—Regional/local	5	Improve Operational Efficiency and Transfers of Water
Desalination	9	Increase Water Supply
Drinking Water Treatment and Distribution	14	Improve Water Quality
Economic Incentives (Loans, Grants, Water Pricing)	21	Practice Resource Stewardship
Ecosystem Restoration	22	Practice Resource Stewardship
Flood Risk Management	28	Improve Flood Management
Forest Management	23	Practice Resource Stewardship
Groundwater Remediation/Aquifer Remediation	15	Improve Water Quality
Introduction	1	
Land Use Planning and Management	24	Practice Resource Stewardship
Matching Water Quality to Use	16	Improve Water Quality
Other Strategies	29	Objectives vary by strategy
Pollution Prevention	17	Improve Water Quality
Precipitation Enhancement	10	Increase Water Supply
Recharge Area Protection	25	Practice Resource Stewardship
Recycled Municipal Water	11	Increase Water Supply
Salt and Salinity Management	18	Improve Water Quality
Surface Storage—CALFED	12	Increase Water Supply
Surface Storage—Regional/Local	13	Increase Water Supply
System Reoperation	6	Improve Operational Efficiency and Transfers of Water
Urban Runoff Management	19	Improve Water Quality
Urban Water Use Efficiency	3	Reduce Water Demand
Water Transfers	7	Improve Operational Efficiency and Transfers of Water
Water-dependent Recreation	26	Practice Resource Stewardship
Watershed Management	27	Practice Resource Stewardship

Section 6. Project Readiness

For the Project Status, please check only one box to indicate the stage of development for the project. If your project has multiple phases in different stages, more than one box can be checked if appropriate and consistent with the project description.

If your project is ongoing, in the "Expected Completion Date" box, it is ok to indicate the current phase of the project and that it is ongoing (e.g. Conceptual Plan Development is on-going).

Examples of projects that do not include construction are implementation projects such as habitat protection, water use efficiency implementation measures, or public education. These projects do not have a design or construction drawing component to the project but could include phases for implementation or when certain measures or Best Management Practices (BMPs) such as washing machine rebates will be available to the public.

Section 7. Project Impacts and Benefits

The following provides examples of impacts and benefits; further discussion can be found in the Proposition 84 & Proposition 1E Integrated Regional Water Management Guidelines here: http://www.water.ca.gov/irwm/grants/docs/Guidelines/GL_2012_FINAL.pdf

WATER SUPPLY ENHANCEMENT

A program to increase water supply may include projects, such as:

- Rehabilitation of diversion structures
- Water supply pipelines and water systems
- Additional water system tie-ins/interconnections
- Construction of groundwater treatment and extraction facilities
- Conjunctive water management
- Aquifer storage and recovery
- New or upgrades to existing reservoirs
- Water storage facilities
- Production well construction

Possible impacts may include reduced in-stream flow, water quality degradation, habitat removal, species removal, flooding, loss of farmland, and construction related impacts. Some of the proposed projects may have impacts on communities, including DACs. If so, these impacts need to be discussed. If there are any EJ impacts, they should be addressed as well. Water supply benefits may be characterized as increased water supply or range in water supply (i.e. acre-feet per year). Other anticipated benefits, such as improved water quality, increased recreational opportunities, decreased reliance on imported water, reduced groundwater overdraft, creation of wetlands and riparian habitat, and decreased operational costs.

WATER QUALITY IMPROVEMENT

A program to improve water quality may include projects, such as:

- Building or upgrading wastewater treatment plants/technology
- Conversion of septic tanks to a sewer system
- Construction of new and updating collection, sewer, and interceptor sewer facilities
- Capture and treatment of stormwater/urban runoff, including the construction of rain gardens
- Construction of wetlands for water quality treatment
- Contaminant removal

- Salinity management

Possible impacts may include construction related impacts including short-term, site-specific impacts related to site grading and construction, and long-term impacts associated with project operation. Construction- related impacts may include: traffic, noise, biological resources, water quality, public services and utilities, cultural resources, and aesthetics. Other impacts may include surface water and ocean habitat loss from new outflow locations, and waste discharge issues associated with brine management and brine disposal. Possible benefits from improved water quality projects may include increased water supply, improved aquatic and wetland species habitat and populations, increased cropland production, creation of wetlands and riparian habitat, improved recreation opportunities, and decreased treatment costs.

GROUNDWATER IMPROVEMENTS

Groundwater improvement programs may include projects to:

- Enhance conjunctive management and groundwater storage
- Capture and recharge Stormwater/Urban Runoff
- Install groundwater recovery wells
- Construct new and/or rehabilitate surface water recharge spreading grounds
- Perform aquifer storage and recovery
- Improve groundwater monitoring
- Conduct hydrogeologic investigations
- Model groundwater

Possible impacts may include construction related effects, changes in water quality, increased contaminant transport, increased pumping, and in-stream flow reduction. Possible benefits may include improved flood protection, decreased reliance on imported water, reduced surface water use, reduced pumping costs, and decreased or prevention of groundwater overdraft.

WATER CONSERVATION AND REUSE

Water conservation and reuse programs may include projects to:

- Upgrade wastewater treatment facilities to recycle water
- Landowner and homeowner incentive programs, such as rebate programs
- Improve agricultural drainage water reuse or management
- Construct recycled water systems and pipelines
- Improve urban landscape water use efficiency

Possible impacts may include construction related effects, loss of drainage flow to downstream water users, in-stream flow loss, groundwater and surface water quality effects associated with recycled water use, and reduced groundwater recharge. Benefits could be increased water saving, efficient reuse of wastewater, costs savings from reduced purchases of imported water, and saving construction of water storage facilities, and increased nutrient levels for plant and crop use from use of reclaimed wastewater.

WATERSHED REHABILITATION

A watershed rehabilitation program may include projects to:

- Decommission abandoned roads
- Enhance unimproved and county road systems for erosion control
- Restore sloughs and/or wetlands
- Manage Stormwater/Urban Runoff
- Conduct channel and riparian restoration and upland source control
- Conduct stream stabilization and other sediment load reduction projects
- Implement Best Management Practices (BMPs), including forestry BMPs
- Reduce non-point source pollution

Possible impacts could be introduction of non-native plants for erosion control and temporary increased turbidity in streams due to construction or related activities, including revegetation and forest regeneration activities and prescribed fires (to reduce undesirable trees and vegetation, etc.). Benefits may include long-term sediment reduction and temperature improvements, reduced surface water nutrient and bacteria concentrations (improved water supply quality), improved fish and wildlife habitat and passage, and enhanced public safety and recreational opportunities.

HABITAT IMPROVEMENT

A habitat improvement program may include projects to:

- Augment stream flows
- Preserve existing habitat
- Remove invasive, non-native species
- Restore wetlands and upland habitat
- Protect ecological reserves

Possible impacts could include short-term, site-specific impacts related to site grading and construction, loss of agricultural land protection and urban uses and associate local revenue. Benefits may be reduced surface water nutrient and bacteria concentrations (improved water supply quality), enhanced fish habitat, increased opportunities for recreational hunting and viewing, increased numbers of native species, reduced flood risks, and education opportunities.

FLOOD MANAGEMENT

Flood management programs may include projects to:

- Improve levees systems (i.e. floodwalls, raising levee heights, setback levees, etc)
- Preserve floodplains
- Development drainage master plans
- Remove invasive species from stream channels to improve surface flow
- Improve stormwater collection, diversion, or capture
- Improve infrastructure, including weir upgrades

Impacts may include short-term, site-specific impacts related to construction, land use restrictions, development moratoriums (with potential economic effects), and loss of riparian and/or wetland acreage. Benefits could include increased aquifer recharge, runoff reduction, improved surface water quality, natural resources preservation and restoration, reduced risk to life and property, and decreased flood insurance costs.

Section 8. Project Cost Estimate

Capital improvement costs should be how much the project would cost to construct or implement in 2013 dollars or escalated to 2013 dollars using the appropriate Engineering News Record (ENR) cost index and footnoted.

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

Agency / Organization / Individual Address:

Possible Partnering Agencies:

Name:*

Title:

Telephone:* **Fax:**

Email:*

Website:

Project Name:*

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: **Project Longitude:**

Location Description:	

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

-
-
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

•
•
•
•

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

•
•
•

How do you rate the technical feasibility of the proposed project?

☐ High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	☐ Primary	☐ Secondary	☐ NA	
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	☐ Primary	☐ Secondary	☐ NA	
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	☐ Primary	☐ Secondary	☐ NA	
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☐ Primary	☐ Secondary	☐ NA	
9. Improve stormwater management throughout the Plan area.	☐ Primary	☐ Secondary	☐ NA	
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	☐ Secondary	☐ NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	☐ Primary	☐ Secondary	☐ NA	
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	☐ Primary	☐ Secondary	☐ NA	

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	☐ Secondary	☐ NA	
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	☐ Secondary	☐ NA	
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	☐ Primary	☐ Secondary	☐ NA	
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	☐ Primary	☐ Secondary	☐ NA	
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	☐ Secondary	☐ NA	
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	☐ NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	☐ Secondary	☐ NA	Agricultural Water Use Efficiency
☐ Primary	☐ Secondary	☐ NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	☐ NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	☐ NA	System Reoperation
☐ Primary	☐ Secondary	☐ NA	Water Transfers
☐ Primary	☐ Secondary	☐ NA	Other (Please State):_____
Increase Water Supply			
☐ Primary	☐ Secondary	☐ NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	☐ NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	☐ NA	Precipitation Enhancement
☐ Primary	☐ Secondary	☐ NA	Recycled Municipal Water
☐ Primary	☐ Secondary	☐ NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Water Quality			
☐Primary	☐Secondary	☐ NA	Drinking Water Treatment and Distribution
☐ Primary	☐ Secondary	☐ NA	Groundwater/Aquifer Remediation
☐ Primary	☐ Secondary	☐ NA	Matching Quality to Use
☐ Primary	☐ Secondary	☐ NA	Pollution Prevention
☐ Primary	☐ Secondary	☐ NA	Salt and Salinity Management
☐ Primary	☐ Secondary	☐ NA	Urban Runoff Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	☐ NA	Agricultural Lands Stewardship
☐ Primary	☐ Secondary	☐ NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	☐ Secondary	☐ NA	Ecosystem Restoration
☐ Primary	☐ Secondary	☐ NA	Forest Management
☐ Primary	☐ Secondary	☐ NA	Land Use Planning and Management
☐ Primary	☐ Secondary	☐ NA	Recharge Areas Protection
☐ Primary	☐ Secondary	☐ NA	Water-Dependent Recreation
☐ Primary	☐ Secondary	☐ NA	Watershed Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☐ Secondary	☐ NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	☐ NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	☐ Yes ☐ No
If yes, please identify the program	_____

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	_____	_____ **(mm/dd/yyyy)**
Feasibility Study	_____	_____ **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	_____	_____ **(mm/dd/yyyy)**
CEQA/NEPA	_____	_____ **(mm/dd/yyyy)**
Permits	_____	_____ **(mm/dd/yyyy)**
Construction Drawings	_____	_____ **(mm/dd/yyyy)**
Funding	_____	_____ **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)? ☐ **Yes** ☐ **No** ☐ **Not Sure**
Does the project address critical water issues (including water supply or water quality) of a disadvantaged community? ☐ **Yes** ☐ **No** ☐ **Not Sure**
Does the project provide specific benefits to critical water issues for Native American tribal communities? ☐ **Yes** ☐ **No** ☐ **Not Sure** **If yes, please identify the tribal community: _____**

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
☐	Increases Water Supply Reliability	
☐	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
☐	Provides Additional Water Supply	
☐	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☐	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State:	
☐	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☐	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☐	Other (Please State):
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☐	Improves Water System Energy Efficiency	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($): _____

Upper estimated total capital cost ($): _____

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($):

_____

Annual Operation and Maintenance Cost ($): _____

Design Life of Project (years): _____

Economic Feasibility

Is the project cost-effective?		
☐ Yes	☐ No	☐ Not Sure
Does the project have a positive benefit-cost ratio?		
☐ Yes	☐ No	☐ Not Sure

Appendix D.2

Project Lists

Appendix D.2a

Project Summary

Mojave Region IRWM Plan Potential Projects (Project Summary)

Project No.	Original Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Project Type	Estimated Project Cost	Project Benefits
3R	3	Water Supply / Recharge	Ames/Reche Groundwater Storage and Recovery Program - Phase II Expansion	Mojave Water Agency, Bighorn-Desert View Water Agency, Hi-Desert Water District	Expand the Ames/Reche Recharge Facility to accommodate the maximum potential delivery capacity of 3,000 acre-feet per year (AFY) (currently permitted for 1,500 AFY).	Conceptual	$100K - $1M	1,000+ acre-feet (AF) groundwater recharge
13R	13	Environmental & Recreation	Camp Cady: Tamarisk removal and riparian restoration program	Mojave Desert Resource Conservation District (MDRCD)	Invasive species (tamarisk) removal, expansion/improvement of endangered Mohave tui chub habitat and implementation of a sustainable engineered riparian habitat irrigation system.	Implementable Project	$100K - $1M	1-100 AF water savings; 500-1,000 acres habitat restoration.
18R	18	Conservation & Education	Commercial/Industrial/ Multi-Family Cash for Grass Program	Alliance for Water Awareness and Conservation	This project would expand the scope of turf removal projects in the Mojave Region to increase water savings throughout the region. The current $10,000 rebate cap for commercial, industrial, and mult-family units has discouraged larger scale landscape conservation projects. The savings this project is expected to provide is approximately 55 gallons of water saved per year per square foot of grass removed.	Implementable Program	$100K - $1M	1,000+ AF water savings.
19	19	Individual or Small System Improvements	Conceptual Planning for Hinkley's Community Drinking Water System	MWA/Lahanton Regional Water Quality Control Board (RWQCB) /Department of Public Health (DPH) grant	Evaluate the concept of a community water system that draws water from a source of water that is not affected by the chromium plume. The water source must not be affected by plume expansion, remedial byproducts, or groundwater drawdown for the lifetime of the source and must be able to meet the water quality requirements.	Conceptual	N/A	Improved water supply for DAC.
21	21	Other	Dairy Nitrate Reduction	Mojave Desert Resource Conservation District (MDRCD)	Obtain funding – to be matched with NRCS/USDA funding – a possible 25% contribution – to: 1) Help dairies pay to haul manure off-site 2) Help fund infrastructure designed to apply waste pond water directly to adjacent fields via irrigation systems, etc. 3) Feasibility study to determine alternate uses of manure for fuels	Implementable	$250K-$1M	Protection of groundwater quality.
22	22	Water Supply / Recharge	Deep Creek Off-River Recharge And Storage Basins	Mojave Water Agency	Off River recharge and storage basins on the Deep Creek Properties: In conjunction with current recharge in the Mojave River, off river basins could be constructed that can be filled from the Morongo basin pipeline.	Conceptual Design	$100K - $1M	N/A
27	27	Flood Management	Dry Well Installation Program, Town wide, Town of Apple Valley	Town of Apple Valley	The proposed project consists of the construction of a series of dry well structures along natural flood water pathways, town wide, in the areas hardest hit by surface runoff flooding. The dry wells will make use of natural low-lying areas to capture storm water runoff, reduce flooding, and promote and maximize groundwater recharge.	Implementable Program	$1M	Improved flood management and groundwater recharge.
29	29	Flood Management/ Recharge	Forks Dam Storm Water Detention	Mojave Water Agency	The project proposes that appropriate infrastructure could capture a significant portion of stormwater flow out of Afton Canyon and allow it to recharge area groundwater systems. This could be accomplished through various diversion structures along the river or make use of the existing Forks Dam to impound storm water. Impounded storm water could be slowly released from the Forks Dam at a rate that would allow percolation rather than run-off though Afton Canyon.	Conceptual	$1M- >$10M	The value of average lost storm water.
31	31	Wastewater / Recycled Water	Helendale Community Services District (CSD) - WWTP Effluent Distribution System	Helendale Community Services District	Design and construction of "Purple Pipe" pipeline system to convey effluent water to nearby Golf Course Irrigation system that currently uses pumped groundwater.	Conceptual	$100K - $1M	1,000+ AF water savings.

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32	32	Wastewater / Recycled Water	Helendale CSD Tertiary Treatment Upgrade	Helendale Community Services District	The project is designed to produce recycled tertiary water for use within the District service area by improving the WWTP processes to provide unrestricted Title 22 recycled water. The delivery phase is two-stage with minor delivery to Helendale Community Park for landscape irrigation and delivery to the Silver Lakes Association for golf course irrigation which would require an extensive pump station and force main. The next phase is recycled water storage required to store water during the wet months for use in the dry months and for use by the onsite farming operation.	Implementable Project	$3,523,500	Increased recycled water supply and groundwater protection.
34	34	Other	Hydroelectric Facility at Deep Creek to generate power for R3 ground water wells	Mojave Water Agency	The Deep Creek Outlet to the Mojave River can generate electrical power for use by the Agency to power the R3 groundwater wells. Two options are possible: 1) construct Groundwater wells at Deep Creek FCF and extend the R3 pipeline to these wells. Our run Conduit and conductors from Deep Creek to the R3 Groundwater wells.	Conceptual	>$10M	Electrical power generation.
35	35	Flood Management	Indian Cove Stormwater Capture and Recharge Project	Twentynine Palms Water District/Joshua Basin Water District	This project could mitigate past over-drafting and prevent future declines in water levels within this shared basin through stormwater capture and recharge in the Indian Cove groundwater basin.	Conceptual -	$100K - $1M	1-100 AF water savings; 1-100 AF new water supply.
36R	36	Individual or Small System Improvements	Infrastructure Improvements Projects	Joshua Basin Water District	Design and Construction of infrastructure replacements to improve efficiency and increase conservation of resources. Particular emphasis on water booster station improvement to reduce energy impacts (i.e. reduce in-rush impacts on pump start-up and increased efficiency of equipment.	Planning, Design, Construction	$1M - $10M	1-100 AF water savings; 1-100 AF groundwater recharge; reduction in energy consumption.
38R	38	Wastewater / Recycled Water	Central Wastewater Treatment Plant Project	Joshua Basin Water District	Design and construction of required central WWTP to include plant siting, WWTP design, trunk sewer alignment and design, environmental compliance, permitting and construction. Central WWTP provides long-term control of nitrate contamination in groundwater basin, as well as other contaminants identified in past studies.	Conceptual -	>$10M	100-1,000 AF new recycled water supply; groundwater quality protection.
40R	40	Conservation & Education	Graywater & Rainwater Harvesting Project	Joshua Basin Water District	Development of design standards and funding of on-site collection facilities for capture of graywater and rainwater by individual property owners located in the JBWD service area. Public education is an important component of the project and will include printed materials and demonstration models of graywater and rainwater collection facilities.	Conceptual	$100K - $1M	1-100 AF water savings; 1-100 AF new water supply; 1-100 AF reduction in groundwater overdraft; reduction in flood damage
41R	41	Flood Management	Stormwater Recovery Project	Joshua Basin Water District	This project would capture and retain stormwater from local arroyos into the new recharge basin to enhance percolation potential into the groundwater basin. Includes studies to determine quantities of stormwater that could be recharged, engineering feasibility for retention and percolation and environmental review.	Feasibility Study	$1M-$10M	100-1,000 AF new water supply; 100-1,000 AF groundwater recharge; flood damage prevention
42R	42	Individual or Small System Improvements	Johnson Valley Pressurized Water System	Bighorn-Desert View Water Agency	This project would bring a pressurized water distribution system to the Agency's service area to improve quality of life, public health and provide for enhanced fire protection. Project should include additional studies for locating water supply wells (building on historical data and the existing conceptual model report), evaluate if existing monitoring Well No. JVHI can be deepened and converted to a production well and CEQA/NEPA studies.	Conceptual	>$10M	1-100 AF new water supply.
49	49	Environmental & Recreation	Mojave River Walk Trail	City of Victorville	Walking / biking trail along the Mojave River. Combined recreational and public education project involving multiple participating agencies.	Conceptual	$5.5M - $12M	Encourages environmental resource stewardship.

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54	54	Water Supply / Recharge	Oro Grande Wash Groundwater Recharge Project	Mojave Water Agency	The Oro Grande Wash Groundwater Recharge Project has an ultimate delivery capacity for approximately 8,000 AF. The trunk facilities are designed to flow the full capacity. The Flow control facility and pipeline into the wash is designed to flow half of the capacity into a joint use San Bernardino County Flood Control Detention/Recharge Basin. This project (Phase 2 of the Oro Grande Wash Project) is to construct a second pipeline to the Wash and to another groundwater recharge area between Amethyst and Bear Valley Road.	Implementable Project	$2M-$3M	Increased groundwater recharge.
56R	56	Water Supply / Recharge	Alto Subarea Regional Aquifer Storage and Restoration (ASR2)	Mojave Water Agency	The Alto Subarea Regional Aquifer Storage and Restoration (ASR2) project would use water from the Mojave Water Agency R-Cubed infrastructure to inject potable water into existing municipal wells in the regional aquifer. Injection would be timed to periods when these wells would not normally be in service (fall-winter). Injected water would be available for immediate use by purveyors during normal demand periods (spring-summer). This project uses existing equipment with very little new infrastructure. Costs incurred would be for minimal retrofitting at wellheads, periodic well cleaning, and injected water.	Conceptual; Implementable Project	N/A	Improves water banking; enhances flood control and riparian restoration.
57	57	Wastewater / Recycled Water	Recycled Water Distribution System	City of Hesperia	Construct a water distribution system for the conveyance of recycled water from the proposed Subregional Treatment Plant in the City of Hesperia. The system would include a non-potable reservoir near the Subregional site, booster pumps, and approximately seven miles of "purple" pipeline to convey recycled water to the Hesperia Golf Club and several other users throughout the City.	Conceptual Design	$1M - $10M	1000+ AF new recycled water supply; 1000+ AF groundwater recharge
58	58	Water Supply / Recharge	Regional Aquifer Recharge Capacity	Mojave Water Agency	MWA has very little off-river aquifer recharge capacity. MWA needs to be able to accept a large quantity of water in a relatively short (wet) period. This could be accomplished through a variety of infrastructure. Once such infrastructure combination could include surface water impoundment for later distribution to recharge ponds, ASR injection wells, etc... In addition this project could easily be expanded to a water bank with an aqueduct pump-back component for "buy low/sell high" of banked water.	Conceptual	>$10M	1-100 AF groundwater recharge; reduction in flood damage.
59	59	Flood Management	Regional Flood Control/Flood Management Plan	Mojave Water Agency	Prepare a multi-jurisdictional, regional flood control / flood management plan that integrates flood data and information, coordinates flood control efforts and infrastructure, and seeks to integrate flood management and water supply projects across the Mojave IRWM Region.	Conceptual	$100K - $1M	Benefits to public access/open space/habitat; reduction in flood damage.
60R	60	Other	Reorganization between two adjacent small water agencies (BDVWA and CSA 70 Zone W-1 [Landers])	Bighorn-Desert View Water Agency	Initiate reorganization through Local Agency Formation Commission (LAFCO). Provide for LAFCO processing fees, boundary map, preparation of TFM Report (Technical, Financial and Managerial) plan for operation of consolidated entities and evaluate physical infrastructure tie-in. Possible need for Master Plan identifying infrastructure improvements and build-out requirements.	Implementable Project	<$100K	
62R		Baja / Ag Issues	Water Conservation Ordinance	County of San Bernardino	A water conservation ordinance in the unincorporated areas of San Bernardino County, within the MWA Jurisdictional Boundary. The MWA has said that the Judgment alone may not be adequate to address all of the water conservation measures that need to be taken to balance water supply and demands in the Baja Subarea. At a Silver Valley Farm Bureau meeting stakeholders were approached about signing into the stipulated agreement. At that time, County Ordinance 810.0605-810.0610 was referred to, to be our protection against unauthorized production. This ordinance was removed in 2007. A new ordinance could help to ensure an equitable share of the benefits made possible by the Physical Solution.	Implementable Project	<$100K	
63	63	Flood Management	Sheep Creek Wash Storm Water	Phelan Piñon Hills Community Services District	The Sheep Creek Wash Storm Water Retention project is intended to capture storm water and recharge the Oeste Basin, in order to help minimize storm water damage and increase groundwater supplies. This conceptual plan would require diverting storm water flows from Sheep Creek Wash to a proposed recharge basin. Storm water flows would be monitored at the inlet of the basin. A proposed monitoring well will also be used to monitor static levels.	Conceptual	$1M-$10M	100-1,000 AF new recycled water supply; 100-1,000 AF groundwater recharge; reduction in flood damage.

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64	64	Flood Management	Silver Lakes Association Stormwater Debris - Retention Basin	Silver Lakes Association	Design and construction of a reinforced concrete storm water debris interceptor where Buckthorn Wash bisects the Silver Lakes Golf Course. Approx. size (LWD): 60-feet x 10-feet x 6-feet.	Conceptual, Design, Construct	<$100K	Reduction in flood damage.
65	65	Water Supply / Recharge	State Water Project Utilization & Efficiency Strategy	Mojave Water Agency	Conceptual program with an overall goal to make the best use of the Region's State Water Project resources for maximum benefit to the Region. This would be an ongoing program with many possible elements and would explore a variety of opportunities to achieve the goal, including transfers, exchanges, purchases and sales of SWP water in concert with conjunctive use, groundwater and surface water storage programs, etc.	Conceptual	N/A	1,000+ AF new water supply; 1,000+ AF groundwater recharge.
66R	66	Water Supply / Recharge	State Water Project Water Treatment Plant in conjunction with R3 project	Mojave Water Agency	Construct a Water treatment plant to treat State Water Project Water and deliver directly into the potable R3 water delivery system. This can be done instead of pumping groundwater wells.	Conceptual	>$10M	1,000+ AF new water supply; 1,000+ AF groundwater recharge.
68R	68	Flood Management	Storm Water Retention and Percolation in Hondo Wash Ruby Wash	Bighorn Desert View Water Agency	Retain storm flows in Hondo Wash and other drainages in the area to enhance percolation potential into Ames groundwater basin (Pipes Subbasin) and provide a mechanism for flood control that does not currently exist. Includes studies to determine quantities of flow that could be captured annually, engineering feasibility for retention and percolation, and environmental impact overview (Initial Study). Water could be retained behind shallow berms or even dam structures along narrow sections of the wash.	Conceptual	$100K - $1M	1-100 AF water savings; 1-100 AF new water supply; 1-100 AF groundwater recharge; reduction in flood damage.
72	72	Individual or Small System Improvements	Twentynine Palms Fluoride Treatment Plant Expansion	Twentynine Palms Water District	In the Mesquite Springs aquifer of the Twentynine Palms Groundwater basin, a second Fluoride Treatment Plant is needed for system redundancy. Project engineering will determine the size and volume of the plant that will produce the most cost-effective results for additional source development within the aquifer, protecting safe yield and preventing drawdown of the Indian Cove and Forty-nine Palms aquifers.	Study, Design, Construction	$1M-$10M	100-1,000 AF new water supply; 100-1,000 AF groundwater recharge.
73	73	Wastewater / Recycled Water	Twentynine Palms Groundwater Protection Plan Septic System Management Element (SSME)	Twentynine Palms Water District/City of Twentynine Palms	In order to protect the groundwater quality within Twentynine Palms, the Groundwater Protection Plan has identified a Septic System Management Program for monitoring and maintenance of the community's only supply of water, groundwater. Indoor conservation and the reduction of outflow to septic systems will be a significant focus of the septic maintenance and informational outreach goals.	Implementable Project	$1M - $10M	1-100 AF water savings.
74R	74	Individual or Small System Improvements	Water Infrastructure Restoration Program: Pipeline Installation/ Replacement Project	Bighorn-Desert View Water Agency	The existing BDVWA infrastructure has deficiencies which prevent it from meeting fire flow due to heavy reliance on 6-inch water mains and Class B fire hydrants; an inability to refill most reservoirs overnight after a 500-gallons per minute fire; and inefficient operation of two zones (E-2 and E-3) due to the manner in which they were originally constructed. Project would improve pressure, fire protection and public safety.	Conceptual	$1M - $10M	N/A
82	82	Water Supply / Recharge	Wrightwood Imported Water Project	Golden State Water Co - Wrightwood	Installation of a well near Desert Front Road, including a pump station and transmission main to import water from the lower elevations south of the town into the higher elevations in the north. Includes study, design and facilities.	Study, Design, Construction	>$10M	N/A
86	86	Individual or Small System Improvements	Alta Loma Reservoir Replacement	Hi-Desert Water District	Increase of 1 MG in water storage capacity to ensure adequate emergency storage (current 250k deficit).	Conceptual	$1M - $10M	Increase of 1 MG in water storage capacity.
92R	92	Wastewater / Recycled Water	Wastewater Reclamation Project	Hi-Desert Water District	The project will provide centralized treatment of wastewater generated within the Town at a level consistent with that of the local discharge requirements of both the Regional Board and the CDPH. Wastewater will be collected and conveyed through a series of pipelines that make up the WRP's collection system. Once delivered to the treatment facility, the treated wastewater will be discharged into the East Hydrogeologic Subunit of the Warren Subbasin providing a future source of extractable groundwater.	Implementable Program	$125,000,000	Groundwater quality protection.

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93	93	Wastewater / Recycled Water	Apple Valley & Hesperia Subregional Water Reclamation Facilities	Victor Valley Wastewater Reclamation Authority	Two scalping facilities that will treat liquids from existing collection system and reuse for irrigation purposes. Once complete, each facility will be able to process up to 1 million gallons per day (MGD) with the opportunity to expand each to 4 MGD.	Implementable Project	$58,800,620	Increased treatment and reuse of recycled water.
94R	94	Individual or Small System Improvements	Fluoride and Arsenic Treatment	City of Adelanto	Construct an Arsenic and Fluoride Treatment System for Potable Well 8A, 5A and 4. Wells are in violation of current Environmental Protection Agency (EPA) Maximum Contaminant Levels (MCL's).	Conceptual	$100K - $1M	
95	95	Wastewater / Recycled Water	Adelanto Pearmain Relief Sewer Line	City of Adelanto	The project would consist of the installation of 12 to 18 inch sewer main and manholes from the waste water treatment plant on Auburn to the intersection of Air Expressway and Pearmain. The project would also connect new County HS that is built but not opened due to lack of County funding.	Implementable Program	$1.35M	Improved sewer system connection and potential additional recycled water.
97	97	Wastewater / Recycled Water	Adelanto Reclaimed Water Delivery Infrastructure	City of Adelanto	Adelanto recently completed expansion of WWTP from 2.5 mgd to 4 mgd. This project is a feasibility study to consider options for expanding the WWTP to tertiary and evaluating potential rw users for viability both hydraulically and need.	Conceptual	$1M - $10M	100-1,000 AF water savings; 100-1,000 AF new recycled water supply; Env. Stewardship/awarene ss; wastwater pollution prevention.
98R	98	Wastewater / Recycled Water	Rehabilitation of Sewage Lift Station	City of Adelanto	Install new larger sewage lift station pit and pump station. Install new pumps and SCADA to same. Install new liner, SCADA communications. Work needed to prevent Sanitary Sewer Overflows.	Conceptual	$100K - $1M	Wastewater pollution prevention.
101	101	Flood Management	Cushenbury Flood Detention Basin	Mojave Water Agency	The project is proposed to capture runoff from the San Bernardino Mountains in the Lucerne Valley Subbasin. The project would divert storm flows to detention basins with high rates of percolation to decrease losses from evaporation.	Conceptual	$100K - $1M	100-1,000 AF new water supply; 100-1,000 AF groundwater recharge; reduction in flood damage.
102	102	Wastewater / Recycled Water	Local Wastewater Treatment Plant (Lucerne)	San Bernardino County	Wastewater treatment in the region is currently provided by individual septic tank systems. It is likely that at some point in the future, a municipal wastewater treatment facility will have to be built. (description from 2004 RWMP)	Conceptual	>$10M	100-1,000 AF new recycled water supply; env. Stewardship.
103	103	Water Supply / Recharge	Lucerne Valley Recharge Ponds	Mojave Water Agency	This project provides an opportunity for recharge in the Este Subarea. Recharge sites have been contemplated both east and west of the Helendale Fault. The 1994 RWMP recommended constructing a facility east of the fault because the majority of pumping occurs east of fault. MWA has purchased land for a recharge facility, prepared preliminary construction plans, and performed the necessary environmental reviews.	Implementable Project	$1M - $10M	1,000+ AF new water supply; 1,000+ AF groundwater recharge.
105	105	Wastewater / Recycled Water	Wrightwood Sewer Plan	MWA/Lahanton RWQCB/DPH grant	The project is to develop a sewer plan for the Wrightwood Community.	Conceptual	$1M-$10M	100-1,000 AF water savings; 100-1,000 AF new water supply; 1-100 AF recycled water; 100-1,000 AF groundwater recharge.

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106	106	Water Supply / Recharge	Sheep Creek Recharge Basin and Two Wells	Phelan Piñon Hills Community Services District	This project consists of the construction of a recharge basin along with 2 pumping wells. The District is looking at utilizing the Sheep Creek California Aqueduct turn-out to extract State Water Project water to recharge the proposed basin utilizing the proposed pipeline. The two proposed wells will be used to pump water into our distribution system and will serve to monitor static and pumping levels of the ground water.	Conceptual	$1M - $10M	1,000+ AF new recycled water supply; 1,000+ AF groundwater recharge.
115	115	Environmental & Recreation	Land and Water Rights Acquisition	California Department of Fish & Wildlife	Acquire voluntary water transfers or water rights to reduce water use. Acquire riparian habitat along the Mojave River either in fee title or through the purchase of a conservation easement.	Implementable Project	$1M - $10M	N/A
116	116	Water Supply / Recharge	Replacement Water Supply for Perchlorate/Nitrate Affected Groundwater - Barstow Area	MWA/Lahanton RWQCB/DPH grant	Perform a feasibility study to determine the most cost effective and sustainable manner to design, construct and operate an alternative water supply for residents adversely affected by perchlorate and nitrate polluted groundwater in an unincorporated area northeast of Barstow.	Feasibility Study	$100K - $1M	1-100 AF new water supply.
117	117	Other	Water Supply and Quality	San Bernardino County Special Districts Department	Water quality and supply projects to meet existing and emerging regulatory requirements. Development of strategically constructed facilities to support and mitigate regional water quality and supply issues.	Conceptual; Feasibility	>$10M	100-1,000 AF recycled water supply; 100-1,000 AF groundwater recharge.
118	118	Conservation & Education	Weather Based Irrigation/Completion of Demonstration Garden Project	Barstow Community College	This proposed project introduces Smart Controllers to maximize irrigation control of water use during the extreme environment condition and helps to manage water use in a normal environment as well. Smart Controllers would create an efficient schedule and give the ability to accommodate micro bursts and downpours of rain. The completion of the Barstow Community College garden project will give way to a High Desert regional concept.	Implementable Project	$50K - $100K	Water conservation and demand reduction.
121	121	Individual or Small System Improvements	Rehabilitate pre-1960 pipelines	Lake Arrowhead Community Services District (CSD)	Rehabilitation of miles of old wastewater pipelines.	Implementable Project	>$10M	Water quality improvement/protection; potential 300 acres restoration.
122	122	Wastewater / Recycled Water	Effluent Outfall Replacement Project	Lake Arrowhead CSD	Replace and upsize the existing effluent outfall pipeline, which travels approximately ten (10) miles and drops 1,200 feet in elevation to property owned by Lake Arrowhead CSD in Hesperia.	Conceptual	>$10M	1,000+ AF new water supply; 1,000+ AF groundwater recharge; reduction in flood damage.
125		Flood Control	Gage Tributary Washes	MWA	There has been ongoing discussion for years regarding storm water flow volume and basin contribution from ungagged desert washes. Simple gages could be installed at road under-crossings. These crossings often have concrete lined channels which makes them ideally suited as ready-made weirs for ephemeral stream gages. Place a pressure transducer in a one-foot steel pipe with holes drilled in it and bolt it to the side of the concrete channel and key washes could be accurately gaged for storm flow.	Conceptual; Implementable	<$100K	Quantify flow in desert washes.
126		Conservation & Education	Community Park and Demo Garden	Helendale CSD	Helendale Community Park is only partially constructed. Current irrigation is using temporary agricultural pipe connected to our Ag well to irrigate a small section of grass. Project installs and maintains grass fields which will mitigate the blow sand and provide a community park play area for under-served children within the CSD boundary.	Implementable	<$100K	13-21 AF water savings; air quality improvement due to the reduction of migrating blow sand.

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127		Individual or Small System Improvements	Water Well No. 10	Helendale CSD	Design and construction of new water supply well (Designated as Well #10) to replace old low-volume production wells which also are showing Gross Alpha emitters as well as arsenic contamination. The project includes the purchase of a well site, drilling of the well, full equiping and testing, easements for a transmission line from well site to connect to current southern terminous of the District water system.	Conceptual	$1M-$10M	100-1,000 AF new water supply; 1-100 AF reduction in groundwater overdraft.
128		Water Quality	Transition Zone Water Quality Study	MWA	Water quality constituents have impacted beneficial use of groundwater in the region around the Helendale fault. Water quality anomalies were further identified in the 2003 URS Transition Zone Report and the 2007 Schlumberger Salt Model Report. The dataset has matured since these earlier studies were completed and this would be a good point to take another look at the data and try to further our understanding of the groundwater chemistry affecting this area. Work could include water quality testing, drilling and well installation, geophysical investigations, and any other scientific techniques that may result in a better understanding of the water quality conditions in the region.	Conceptual	<$100K	Improve local agency understanding of water quality issues in the Transition Zone.
129		Individual or Small System Improvements	Well Abandonment	HDWD	HDWD has identified 40 private and public wells within the Warren Valley Subbasin that require either destruction or protective measures to be installed. This project focuses on providing funding to well owners to complete the necessary work in an effort to protect the groundwater basin.	Implementable	$100K - $1M	Provides groundwater protection measures that benefit agency.
130		Individual or Small System Improvements	Sewer Lift Station Nos. 1 and 3 Improvements	Running Springs Water District	The Running Springs Water District's Sewer Lift Station Nos. 1 and 3 are more than 40 years old and in need of significant improvements to increase reliability and reduce the potential for sanitary sewer overflows into the Deep Creek watershed. The improved reliability to these critical sewer lift stations will increase the water quality impacts to the headwaters of the Mojave watershed.	Implementable	$1.2M-$1.5M	Wastewater pollution prevention.
1001	**	Wastewater / Recycled Water	Sewer Lift Station or Reverse Osmosis (RO) Treatment Plant	City of Victorville	The lift station is preferred over the RO plant due to the ongoing operational and maintenance costs associated with RO. The RO project could integrate with other recycled water projects in the region, such as with the City of Adelanto; however, VSD 4 lift station is preferred over this project due to the ongoing operational and maintenance costs associated with reverse osmosis. Integrates Projects 17 and 61.	Conceptual; Implementable	$1M-$10M	1,000+ AF water savings; 1,000+ recycled water supply.
1002	**	Judgment/Water Rights Issues	Evaluate and consider potential modifications to the Judgment for the Baja Subarea	Mojave Water Agency	General project concept is to evaluate and consider potential modifications to the Mojave Basin Area Judgment for the Baja Subarea. The goal would be to maintain an equitable approach to water resource planning and development for all stakeholders in the Baja area and not deprive Baja of an equitable share of benefits made possible by the Physical Solution and Judgment. Further evaluation and consideration would be required by the Watermaster and the Court. The following general ideas were received through the IRWMP process and are summarized into two main groups for evaluation purposes. 1. Explore other ideas for Production Safe Yield as defined in the Judgment as an alternative sustainable target for management of Free Production Allowance in Baja. An evaluation may include changes to production rights and alternative Rampdown approaches. 2. Explore the potential for strategies to sell, lease or share Free Production Allowances among parties that could alleviate rampdown impacts to certain groups or types or agricultural operations. Integrates Projects 2, 11R, 20R, 46R, 67R, 76R and 104.	Conceptual	N/A	N/A
1003	**	Individual or Small System Improvements	Assistance Program for Small Drinking Water Systems	Mojave Water Agency, San Bernardino County Environmental Health Services	Program would identify water supply, water quality and infrastructure needs of small drinking water systems within the IRWM Region. Small systems needs may include but not limited to: Water quality treatment systems, fireflow protection, replacing aging infrastructure, install new infrastructure, interconnection with other purveyors, well drilling, scada systems, feasibility studies, etc. This program would help connect small systems to available funding by identifying funding sources, assisting with grant applications and paperwork, etc. Sources of funding could include State and Federal funds from a variety of programs designed to help small systems in the identified challenges listed. Integrates Projects 6, 7, 15, 44, 45R 52, 69, 80, 83, 84, 85, 100, and 120.	Conceptual	$100K - $10M	N/A

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Project No.	Original Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Project Type	Estimated Project Cost	Project Benefits
1004	**	Baja / Ag Issues	Baja Sustainability Initiative #1 (Agricultural Water Conservation and Base Annual Production Right (BAP) Acquisition Program)	Mojave Water Agency	This Agricultural Water Conservation program will be accomplished through several different means. It includes components of a Voluntary program funded entirely from local, state, federal and/or water fee dollars that purchase base annual production rights (BAP) from stipulated parties under the Mojave Basin Area Judgment. All BAP will be purchased by the Mojave Water Agency and be permanently retired. Each producer's percentage share of BAP will determine the eligible amount of BAP that can be sold to MWA. Also, a Crop Conversion program that would incentivize converting from water intensive crops like Alfalfa to other water efficient crops, with the ultimate goal of reducing costs to the point of making direct delivery of SWP viable and economically feasible. Integrates Projects 1, 10, 25, 55R, and 70R.	Implementable Project	$1M - $10M	1000+ AF water savings; 1000+ AF new water supply; 1000+ AF groundwater recharge
1005	**	Conservation & Education	Regional Demonstration Garden Program - Multiple locations	Mojave Water Agency, Newberry Springs Community Services District (CSD), City of Victorville	Construction of a variety of demonstration gardens to engage and educate visitors and communities in solutions for creating beautiful and environmentally smart landscapes. Design would include development aimed at local biomes, taking in climate and soil types, and the need to demonstrate gardening, smart agriculture, irrigation infrastructure, etc. These gardens would be similarly improved in regards to education and information availability, for example, signage, information kiosks, educational material, and QR readers. Integrates Projects 5, 23, 33, and 123.	Conceptual and Implementable	<$100k	100-1,000 AF water savings.
1006	**	Individual or Small System Improvements	Capital Water Main Replacement Program	Hi-Desert Water District	This project would include the replacement of 46,940 lineal feet of old; undersized steel water mains with that of PVC constructed water mains. During installation, new, properly spaced isolation valves and fire hydrants would also be installed along with service lines. Construction of this infrastructure would be in various areas within the Town of Yucca Valley. Integrates Projects 87-91.	Conceptual	$3,520,500 - $4,694,000	Increased water supply efficiency.
1007	**	Baja / Ag Issues	Baja Sustainability Initiative #2 (Baja Major Storm Diversion Network)	Mojave Water Agency	A major storm event diversion network to capture storm flows and transfer them to retention ponds that could then be disbursed on the south side of the valley to help facilitate recharge and recovery in areas that are unable to receive any natural benefit from storm flows that run down the river. A reduction in the velocity of the storm flows could also greatly assist in the prevention of scouring Cady Riparian Habitat. This would also include investigation into the possible utilization of pit at Kewitt, possible installation of weirs and irrigation channels to divert flood waters to percolation ponds, injection wells. Integrates Projects 8, 9, 43, 47, and 75.	Conceptual	$1M-$10M	1,000+ AF new water supply; 1,000+ AF groundwater recharge; reduction in flood damage.
1008	**	Water Supply / Recharge	R-Cubed Enhanced Purveyor Supply System	Mojave Water Agency	Design and install conveyance from R-Cubed to purveyors not currently connected to R-Cubed. This may be through direct conveyance or via interconnections with purveyors currently receiving R-Cubed water to “wheel” water to purveyors adjacent to their systems. The project includes study, design and facilities. Integrates Projects 37, 96, 124.	Conceptual	$100K - $1M	Increased water supply and reliability.
1009	**	Baja / Ag Issues	Baja Sustainability Initiative #3 (Channel Dredging, Flood Control, Riparian Protection and Vegetation Removal)	Mojave Desert Resource Conservation District (MDRCD)	The Mojave River is choked with vegetation causing channel capacities to be exceeded during major flood events. Removing the vegetation and/or excavating the channel would increase the carrying capacity and decrease the flood risk for select areas. By allowing flood water to flow without restrictions, areas downstream might have a higher probability to be naturally recharged during small and large storm events. Design and reinstate a channel(s) through project area to carry storm flows to reduce flooding of improved parcels. Integrates Projects 16 and 53.	Design/Implementable	N/A	1,000+ AF new water supply; 1,000+ AF groundwater recharge.
1010	**	Conservation & Education	JBWD CUWCC Compliance Project	Joshua Basin Water District	Urban water management planning requires planning, design and implementation of a variety of best management practices for the purposes of increasing conservation, educating the community on water issues, and reducing wasteful water practices. A large component of the proposed project is a system-wide leak detection program. Integrates Projects 39 and 99.	Conceptual	$100K - $1M	1-100 AF water savings; 1-100 AF reduction in groundwater overdraft; public awareness.
1011	**	Water Supply / Recharge	Antelope Valley Wash / Ranchero Basin Recharge Ponds	City of Hesperia, MWA	The Ponds would provide groundwater recharge upgradient from Hesperia Water District wells. The Hesperia Master Plan of Drainage identifies a 65 acre site for a storm water detention basin in the Antelope Valley Wash south of the newly constructed Ranchero Road. In addition to storm water detention, the site would be able to accommodate groundwater recharge. Integrates Projects 4 and 109.	Conceptual Design	$1,700,000	1,000+ AF groundwater recharge; reduction in flood damage.

Mojave Region IRWM Plan Potential Projects (Project Summary)

Project No.	Original Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Project Type	Estimated Project Cost	Project Benefits
1012	**	Water Supply / Recharge	Cedar Street / Bandicoot Detention Basin	City of Hesperia, MWA	The Basin would provide groundwater recharge upgradient from Hesperia Water District wells. The Hesperia Master Plan of Drainage identifies a 120 acre site for a storm water detention basin at the east end of Cedar Street and southwesterly of the California Aqueduct. In addition to storm water detention, the site would be able to accommodate groundwater recharge. Integrates Projects 14 and 107.	Conceptual Design	$2,000,000	1,000+ AF groundwater recharge; reduction in flood damage.
1013	**	Baja / Ag Issues	Baja Sustainability Initiative #4 (Well Assistance Program)	Baja Sub-Advisory Committee	Financial assistance program to provide low interest loans and grants to help low income individuals finance the costs for construction, refurbishment or service of their individual household water wells. May also include requests for financial assistance for SPW from Mojave River Pipeline. Integrates Projects 26 and 81R.	Conceptual	$100K - $1M	1-100 AF new water supply.
1014	**	Conservation & Education	Water University	Mojave Water Agency, Alliance for Water Awareness and Conservation, JBWD	The Water University Program is a comprehensive educational and outreach program targeting teachers, real estate professionals, the business community, as well as the general public. This four-component program would offer curriculum for teachers to use in their classrooms for use in science and social studies classes. The second education component targets Fire Departments with education materials and presentations for greater water efficiencies. The third component targets businesses and the real estate community with water conservation information. The fourth component targets irrigation supervisors and contractors by offering a certificate program in water efficiency. Integrates Projects 30, 78, and 79.	Implementable Project		
1015	**	Flood Management - County	SB County Integrated Flood Projects	SB County Flood Control District	Flood projects throughout the Region all completed by SB County Flood Control District. Integrates Projects 108, 110-114.	Conceptual and Design		Reduction in flood damage.

** Projects that are highlighted yellow are Integrated Projects, with the combined projects listed under the "Comments/Review Questions" Column for the Project.

Appendix D.2b

Project Submittals Screened Out

Mojave Region IRWM Plan Potential Projects (Project Screened Out)

Project No.	Original Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Reason for Recommend-ation
The Project Team recommends that the following project submittals not be included in the Mojave IRWM Plan. Reasons for the recommendation are shown in the far right column.						
12		Water Supply / Recharge	Cadiz Valley Water Conservation, Recovery, and Storage Project	Cadiz Inc.	The project will implement a comprehensive, long-term groundwater management program for the groundwater basin underlying the Cadiz property. The project would produce 50,000 acre-feet per year of conserved water.	Due to no local sponsor and concern with unmitigated effects of project on environment.
24R	24	Environmental & Recreation	Desert Wash Protection - Watershed Enhancement	Submitted by Jenny Wilder, Apple Valley resident	This project would review all major and minor washes in the region to help prevent development from impacting down "stream" areas. Many desert washes in their natural undisturbed state are riparian areas that encourage percolation (act like a sponge), slowing down the flow of the water. When these washes are disturbed and/or narrowed, the flow increases and takes with it a lot of sand, causing flood damage downstream.	No sponsor.
28		Judgment/Water Rights Issues	Fair Taxation of Water Rights Acquired Outside the Original Adjudication	Submitted by Pauline Hass	Have the State Board of Equalization rewrite and lower the taxation of water rights acquired outside the original adjudication.	Did NOT resubmit project, so withdrew.
48R	48	Environmental & Recreation	Mojave River Dam-Deep Creek Spillway Wetlands restoration	Submitted by Jenny Wilder, Apple Valley resident	This is a site specific project at the end of Deep Creek Road. This project would integrate well with the Deep Creek Nature Center just being built and some of the other educational projects.	No sponsor.
50		Water Supply / Recharge	Morongo Basin Cooperative Projects	Joshua Basin Water District	Through a series of regional planning meetings, identify, design and implement a variety of projects with regional benefit, including water system interties, regional education and conservation programs, potential regional water storage & recovery projects, wastewater management strategies, and other identified project for regional benefit.	Applicant requested to withdraw submittal.
51		Other	Multi-Jurisdictional Technology Integration Project	Joshua Basin Water District	Adjacent agencies have various forms of technologies (GIS, SCADA, CMMS, etc.) that can be standardized and integrated regionally to facilitate better communication and response in the event of a regional emergency. Project increase agency cooperation in normal operations as well by increasing regional communication.	Applicant requested to withdraw submittal.
77		Individual or Small System Improvements	Water Treatment Plant	Golden State Water Co - Barstow	Build water treatment plant in the Barstow area.	Did NOT resubmit project, so withdrew.
119		Baja / Ag Issues	Direct Delivery of State Project Water to NRG Energy		Raw water distribution network Mojave River Pipeline in Daggett and extending to NRG Energy. Would provide for the direct delivery of State Water Project (SWP) water to reduce groundwater pumping.	No sponsor.

Appendix D.2c

Ranked List of Projects

Mojave Region IRWM Plan Potential Projects (Sorted by Rank)

Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Comments/ Review Questions	Project Type	Prioritized Objectives															Primary Objectives	Importance	Urgency	Tier for Ranking	Get Real Rank
							1	3	7	2	4	5	8	9	10	11	12	13	14	6						
							Balance Supply & Demand	Maintain Stable GW Basins	Support & Assist DAC's	Improve Water Use Efficiency	Reduce Reliance on Delta	Optimize Use of Assets	Improve Environmental Stewardship	Improve Floodplain Mgmt.	Preserve Water Quality	Obtain Financial Assistance	Improve Public Awareness	Establish Reliable Maintenance Funding	Increase Use of Recycled Water	Prevent Land Subsidence					
18R	Conservation & Education	Commercial/Industrial/ Multi-Family Cash for Grass Program	Alliance for Water Awareness and Conservation	This project would expand the scope of turf removal projects in the Mojave region. Currently, there is a $10,000 rebate cap for commercial, industrial, and mult-family units. This has discouraged larger scale landscape conservation projects. The savings this project can expect is approximately 55 gallons of water saved per year per square foot of grass removed. this would increase our water savings throughout the region based on how much participation we receive in the process.		Implementable Program	2	2		1	1					2	1				2,12	H	H	1	1
60R	Other	Reorganization between two adjacent small water agencies (BDVWA and CSA 70 Zone W-1 [Landers])	Bighorn-Desert View Water Agency	Initiate reorganization through LAFCO. Provide for LAFCO processing fees, boundary map, preparation of TFM Report (Technical, Financial and Managerial) plan for operation of consolidated entities and evaluate physical infrastructure tie-in. Possible need for Master Plan identifying infrastructure improvements and build-out requirements.		Implementable Project	~~1~~		1	2		1			2	~~1~~	2	~~1~~			7,5	H	H	1	1
92R	Wastewater / Recycled Water	Wastewater Reclamation Project	Hi-Desert Water District	The District's Wastewater Reclamation Project has been determined to be the most viable method of ensuring the Town's compliance with the Regional Board's adoption of the septic tank discharge Prohibition. The project will provide centralized treatment of wastewater generated within the Town at a level consistent with that of the local discharge requirements of both the Regional Board and the CDPH. Wastewater will be collected and conveyed through a series of pipelines that make up the WRP's collection system. Once delivered to the treatment facility, the treated wastewater will be discharged into the East Hydrogeologic Subunit of the Warren Subbasin providing a future source of extractable groundwater.		Implementable Project	2	2	1	2	2	2			1		2				7,10	H	H	1	1
93	Wastewater / Recycled Water	Apple Valley & Hesperia Subregional Water Reclamation Facilities	Victor Valley Wastewater Reclamation Authority	Two scalping facilities that will treat liquids from existing collection system and reuse for irrigation purposes. Once complete, each facility will be able to process up to 1 million gallons per day (MGD) with the opportunity to expand each to 4 MGD.	2004 RWMP (VVWRA Subregional Wastewater Treatment Plants).	Implementable Project	2	2	2	~~2~~	1	2			2		~~2~~	~~2~~	1	1	4,14	H	H	1	1
1011	Water Supply / Recharge	Antelope Valley Wash / Ranchero Basin Recharge Ponds	City of Hesperia, MWA	The Ponds would provide groundwater recharge upgradient from Hesperia Water District wells. The Hesperia Master Plan of Drainage identifies a 65 acre site for a storm water detention basin in the Antelope Valley Wash south of the newly constructed Ranchero Road. In addition to storm water detention, the site would be able to accommodate groundwater recharge. Integrates Projects 4 and 109.	Integrates Projects 4 and 109.	Conceptual Design		1				1		1		2					3	H	H	1	1
19	Individual or Small System Improvements	Conceptual Planning for Hinkley's Community Drinking Water System	MWA/Lahanton Regional Water Quality Control Board (RWQCB) /Department of Public Health (DPH) grant	Evaluate the concept of a community water system that draws water from a source of water that is not affected by the chromium plume. The water source must not be affected by plume expansion, remedial byproducts, or groundwater drawdown for the lifetime of the source and must be able to meet the water quality requirements.	Hinkley Water Supply Augmentation - 2004 Regional Water Management Plan - MWA	Conceptual			1			2				2			~~2~~			7	H	H	1	2
32	Wastewater / Recycled Water	Helendale Community Services District (CSD) Tertiary Treatment Upgrade	Helendale Community Services District	The District has completed a Recycled Water Facilities Plan which has identified a preferred treatment alternative and cost scenario estimated at $2,670,000 for plant upgrades. The project is designed to produce recycled tertiary water for use within the District service area by improving the WWTP processes to provide unrestricted Title 22 recycled water. The delivery phase is two-stage with minor delivery required to move Title 22 water across the street to Helendale Community Park for landscape irrigation, and the second stage for delivery of Title 22 water to the Silver Lakes Association for golf course irrigation which would require an extensive pump station and force main. The next phase is recycled water storage required to store water during the wet months for use in the dry months and for use by the onsite farming operation. However, this stage of tertiary treatment can be reduced by the implementation of full phase 2 providing recycled water to the SLA golf course.		Implementable Project	1	1		~~2~~	1	1			1	~~1~~	2	~~2~~	1		10,1,3	H	H	1	2
57	Wastewater / Recycled Water	Recycled Water Distribution System	City of Hesperia	Construct a water distribution system for the conveyance of recycled water from the proposed Subregional Treatment Plant in the City of Hesperia. The system would include a non-potable reservoir near the Subregional site, booster pumps, and approximately seven miles of "purple" pipeline to convey recycled water to the Hesperia Golf Club and several other users throughout the City.		Conceptual Design	1	2	2			1			1				1		1,5,14	H	H	1	2
95	Wastewater / Recycled Water	Adelanto Pearmain Relief Sewer Line	City of Adelanto	The project would consist of the installation of 12 to 18 inch sewer main and manholes from the waste water treatment plant on Auburn to the intersection of Air Expressway and Pearmain. Project would also connect new County HS that is built but not opened due to lack of County funding. However, if/when school does open, the current existing Adelanto sewer does NOT have enough capacity to convey projected school ww flows.		Implementable Project		~~2~~	1	~~2~~			~~2~~		1	~~1~~	~~2~~		2		7,10	H	H	1	2
106	Water Supply / Recharge	Sheep Creek Recharge Basin and Two Wells	Phelan Piñon Hills Community Services District	Recharge Basin from State Water Project along with 2 pumping wells. The purpose for this project is to purchase water from State Water Project in the future. Currently the District pumps 100% of its water with natural recharge of the basin. With future growth comes future water demand the District is looking at utilizing the Sheep Creek California Aqueduct turn-out to extract state water to recharge the proposed basin utilizing the proposed pipeline. The two proposed wells will be used to pump water into our distribution system. They will also serve to monitor static and pumping levels of the ground water.	Sheep Creek Recharge Ponds - 2004 RWMP	Conceptual	1	1	1		1	1			~~1~~		~~1~~		~~2~~	2	7	H	H	1	2
116	Water Supply / Recharge	Replacement Water Supply for Perchlorate/Nitrate Affected Groundwater - Barstow Area	MWA/Lahanton RWQCB/DPH grant	Perform a feasibility study to determine the most cost effective and sustainable manner to design, construct and operate an alternative water supply for residents adversely affected by perchlorate and nitrate polluted groundwater in an unincorporated area northeast of Barstow.		Feasibility Study			1			1			1	~~1~~	~~1~~	~~1~~			7,5	H	H	1	2
1003	Individual or Small System Improvements	Assistance Program for Small Drinking Water Systems	Mojave Water Agency, San Bernardino County Environmental Health Services	Program would identify water supply, water quality and infrastructure needs of small drinking water systems within the IRWM Region. Small systems needs may include but not limited to: Water quality treatment systems, fireflow protection, replacing aging infrastructure, install new infrastructure, interconnection with other purveyors, well drilling, scada systems, feasibility studies, etc. This program would help connect small systems to available funding by identifying funding sources, assisting with grant applications and paperwork, etc. Sources of funding could include State and Federal funds from a variety of programs designed to help small systems in the identified challenges listed. Integrates Projects 6, 7, 15, 44, 45R 52, 69, 80, 83, 84, 85, 100, and 120.	Integrates Projects 6, 7, 15, 44, 45R, 52, 69, 80, 83, 84, 85, 100, and 120.	Conceptual	2	2	1						2	1		1			7,11	H	H	1	2
1004	Baja / Ag Issues	Baja Sustainability Initiative #1 (Agricultural Water Conservation and Base Annual Production Right (BAP) Acquisition Program)	Mojave Water Agency	This Agricultural Water Conservation program will be accomplished through several different means. It includes components of a Voluntary program funded entirely from local, state, federal and/or water fee dollars that purchase base annual production rights (BAP) from stipulated parties under the Mojave Basin Area Judgment. All BAP will be purchased by the Mojave Water Agency and be permanently retired. Each producer's percentage share of BAP will determine the eligible amount of BAP that can be sold to MWA. Also, a Crop Conversion program that would incentivize converting from water intensive crops like Alfalfa to other water efficient crops, with the ultimate goal of reducing costs to the point of making direct delivery of SWP viable and economically feasible. Integrates Projects 1, 10, 25, 55R, and 70R.	Integrates Projects 1, 10, 25, 55R, and 70R.	Implementable Program	1	1	1	1		1	1			~~1~~	1			1	1,3,7	H	H	1	2

Mojave Region IRWM Plan Potential Projects (Sorted by Rank)

Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Comments/ Review Questions	Project Type	Prioritized Objectives															Primary Objectives	Importance	Urgency	Tier for Ranking	Get Real Rank
							1	3	7	2	4	5	8	9	10	11	12	13	14	6						
							Balance Supply & Demand	Maintain Stable GW Basins	Support & Assist DAC's	Improve Water Use Efficiency	Reduce Reliance on Delta	Optimize Use of Assets	Improve Environmental Stewardship	Improve Floodplain Mgmt.	Preserve Water Quality	Obtain Financial Assistance	Improve Public Awareness	Establish Reliable Maintenance Funding	Increase Use of Recycled Water	Prevent Land Subsidence					
1012	Water Supply / Recharge	Cedar Street / Bandicoot Detention Basin	City of Hesperia, MWA	The Basin would provide groundwater recharge upgradient from Hesperia Water District wells. The Hesperia Master Plan of Drainage identifies a 120 acre site for a storm water detention basin at the east end of Cedar Street and southwesterly of the California Aqueduct. In addition to storm water detention, the site would be able to accommodate groundwater recharge. Integrates Projects 14 and 107.	Integrates Projects 14 and 107.	Conceptual Design		1				1		1		~~2~~						3,5,9	H	H	1	2
3R	Water Supply / Recharge	Ames/Reche Groundwater Storage and Recovery Program - Phase II Expansion	Mojave Water Agency, Bighorn-Desert View Water Agency, Hi-Desert Water District	Expand the Ames/Reche Recharge Facility to accommodate the maximum potential delivery capacity of 3,000 AF/Yr. (currently permitted for 1,500 AF/Yr.).		Conceptual	1	1	1	~~2~~	2	1	~~2~~		~~2~~	~~1~~		~~1~~		2	1,3,7	H	H	1	3
22	Water Supply / Recharge	Deep Creek Off-River Recharge And Storage Basins	Mojave Water Agency	Off River recharge and storage basins on the Deep Creek Properties		Conceptual Design	1	1			1	1			~~1~~						1,3	H	H	1	3
29	Flood Management/Recharge	Forks Dam Storm Water Detention	Mojave Water Agency	Although extremely variable on average 41,000 acre feet of storm water flow out of Afton Canyon every 6 years. Based on current State Water Project delivery costs this equates to approximately $16 million worth of "lost" water. The project proposes that appropriate infrastructure could capture a significant portion of this water and allow it to recharge area groundwater systems. This could be accomplished through various diversion structures along the river or make use of the existing Forks Dam to impound storm water. Impounded storm water could be slowly released from the Forks Dam at a rate that would allow percolation rather than run-off though Afton Canyon.		Conceptual	1	1	2		1	1	~~2~~	1	~~1~~	~~1~~		~~2~~	~~2~~	1	1,3,5	H	H	1	3
35	Flood Management	Indian Cove Stormwater Capture and Recharge Project	Twentynine Palms Water District/Joshua Basin Water District	The Department of Water Resources has identified the safe yield for the Indian Cove groundwater basin, limiting production to 1,500 acre-feet per year to avoid overdraft. This project could mitigate past over-drafting and prevent future declines in water levels within this shared basin.		Conceptual		1	1					2	~~1~~	~~2~~		~~1~~			3,7	H	H	1	3
42R	Individual or Small System Improvements	Johnson Valley Pressurized Water System	Bighorn-Desert View Water Agency	Approximately 1/3rd of the Agency's service area is without a pressurized water supply. Residents in these areas rely on hauled water (self-haul or commercial delivery). Property owners are now prohibited from building or improving their property using hauled water as the water supply. Project would bring a pressurized water distribution system to the area to improve quality of life, public health and provide for enhanced fire protection.		Conceptual	1	1	1			1			2	~~1~~	~~2~~	~~1~~			1,3,7	H	H	1	3
54	Water Supply / Recharge	Oro Grande Wash Groundwater Recharge Project	Mojave Water Agency	The Oro Grande Wash Groundwater Recharge Project has an ultimate delivery capacity for approximately 8,000 AF. The trunk facilities are designed to flow the full capacity. The Flow control facility and pipeline into the wash is designed to flow half of the capacity into a joint use San Bernardino County Flood Control Detention/Recharge Basin. This project (Phase 2 of the Oro Grande Wash Project) is to construct a second pipeline to the Wash and to another groundwater recharge area between Amethyst and Bear Valley Road.		Implementable Project	1	1			1	1									1,3	H	H	1	3
56R	Water Supply / Recharge	Alto Subarea Regional Aquifer Storage and Restoration (ASR2)	Mojave Water Agency	The Alto Subarea Regional Aquifer Storage and Restoration (ASR2) project would use water from the Mojave Water Agency R-Cubed infrastructure to inject potable water into existing municipal wells in the regional aquifer. Injection would be timed to periods when these wells would not normally be in service (fall-winter). Injected water would be available for immediate use by purveyors during normal demand periods (spring- summer). This project uses existing equipment with very little new infrastructure. Costs incurred would be for minimal retrofitting at wellheads, periodic well cleaning, and injected water.		Conceptual; Implementable Project	1	1	1		1	1	1	2	1	~~2~~		~~2~~		1	1,3,7	H	H	1	3
62R	Baja / Ag Issues	Water Conservation Ordinance	County of San Bernardino			Implementable	1	1	2	1	~~2~~	2	2	~~2~~	~~2~~	~~2~~	2	~~2~~	~~2~~	1	1	H	H	1	3
66R	Water Supply / Recharge	State Water Project Water Treatment Plant in conjunction with R3 project	Mojave Water Agency	Construct a Water treatment plant to treat State Water Project Water and deliver directly into the potable R3 water delivery system. This can be done instead of pumping groundwater wells.		Conceptual	1	1	2		1	1			1	~~2~~		~~2~~			3	H	H	1	3
73	Wastewater / Recycled Water	Twentynine Palms Groundwater Protection Plan Septic System Management Element (SSME)	Twentynine Palms Water District/City of Twentynine Palms	The Regional Water Quality Control Board (Colorado Region) has adopted a septic rule in order to comply with the State Recycled Water Policy. In order to protect the groundwater quality within Twentynine Palms, the Groundwater Protection Plan has identified a Septic System Management Program for monitoring and maintenance of the community's only supply of water, groundwater. Indoor conservation and the reduction of outflow to septic systems will be a significant focus of the septic maintenance and informational outreach goals.		Implementable Program			1	2					1	~~2~~	1	~~1~~			7	H	H	1	3
74R	Individual or Small System Improvements	Water Infrastructure Restoration Program: Pipeline Installation/ Replacement Project	Bighorn-Desert View Water Agency	The existing BDVWA infrastructure has deficiencies which prevent it from meeting fire flow due to heavy reliance on 6-inch water mains and Class B fire hydrants; an inability to refill most reservoirs overnight after a 500-gallons per minute fire; and inefficient operation of two zones (E-2 and E-3) due to the manner in which they were originally constructed. Project would improve pressure, fire protection and public safety.		Conceptual			1			2				~~1~~		~~1~~			7	H	H	1	3
94R	Individual or Small System Improvements	Fluoride and Arsenic Treatment	City of Adelanto	Construct an Arsenic and Fluoride Treatment System for Potable Well 8A, 5A and 4. Wells are in violation of current EPA MCL's.		Conceptual	1					1			1	~~1~~	~~1~~				1,5,10	H	H	1	3
101	Flood Management	Cushenbury Flood Detention Basin	Mojave Water Agency	Proposed to capture runoff from the San Bernardino Mountains in the Lucerne Valley Subbasin. Currently, large storm flows drain to dry lake beds in the area that have low percolation rates. Consequently, the majority of water that drains to the lake beds is lost to evaporation and never enters the basin. The project would divert storm flows to detention basins with high rates of percolation to decrease losses from evaporation.	2004 RWMP	Conceptual	1	2	1		1	1		1							1,7	H	H	1	3
102	Wastewater / Recycled Water	Local Wastewater Treatment Plant (Lucerne)	San Bernardino County	Wastewater treatment in the region is currently provided by individual septic tank systems. It is likely that at some point in the future, a municipal wastewater treatment facility will have to be built. (description from 2004 RWMP)	2004 RWMP	Conceptual			1						1				1		7,10	H	H	1	3
103	Water Supply / Recharge	Lucerne Valley Recharge Ponds	Mojave Water Agency	Provides an opportunity for recharge in the Este Subarea. Recharge sites have been contemplated both east and west of the Helendale Fault. The 1994 RWMP recommended constructing a facility east of the fault because the majority of pumping occurs east of fault. MWA has purchased land for a recharge facility, prepared preliminary construction plans, and performed the necessary environmental reviews.	2004 RWMP	Implementable Project	1	1	1												1,3,7	H	H	1	3
1002	Judgment/Water Rights Issues	Evaluate and consider potential modifications to the Judgment for the Baja Subarea	Mojave Water Agency	General Project Concept is to combine projects submitted in the IRWM Planning process regarding policy issues relating to the Mojave Basin Area judgment. Integrates Projects 2, 11R, 20R, 46R, 67R, 76R and 104.	Integrates Projects 2, 11R, 20R, 46R, 67R, 76R, and 104.	Conceptual	1	1	2	1	2	1	1		1	~~1~~	2			2	1,3	H	H	1	3

Mojave Region IRWM Plan Potential Projects (Sorted by Rank)

Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Comments/ Review Questions	Project Type	Prioritized Objectives: 1 Balance Supply & Demand	3 Maintain Stable GW Basins	7 Support & Assist DAC's	2 Improve Water Use Efficiency	4 Reduce Reliance on Delta	5 Optimize Use of Assets	8 Improve Environmental Stewardship	9 Improve Floodplain Mgmt.	10 Preserve Water Quality	11 Obtain Financial Assistance	12 Improve Public Awareness	13 Establish Reliable Maintenance Funding	14 Increase Use of Recycled Water	6 Prevent Land Subsidence	Primary Objectives	Importance	Urgency	Tier for Ranking	Get Real Rank
1007	Baja / Ag Issues	Baja Sustainability Initiative #2 (Baja Major Storm Diversion Network)	Mojave Water Agency	A major storm event diversion network to capture storm flows and transfer them to retention ponds that could then be disbursed on the south side of the valley to help facilitate recharge and recovery in areas that are unable to receive any natural benefit from storm flows that run down the river. A reduction in the velocity of the storm flows could also greatly assist in the prevention of scouring Cady Riparian Habitat. This would also include investigation into the possible utilization of pit at Kewitt, possible installation of weirs and irrigation channels to divert flood waters to percolation ponds, injection wells. Integrates Projects 8, 9, 43, 47, and 75.	Integrates Projects 8, 9, 43, 47, and 75.	Conceptual	1	1	1			1		1		~~1~~		~~1~~			1	1,3,7	H	H	1	3
1013	Baja / Ag Issues	Baja Sustainability Initiative #4 (Well Assistance Program)	Baja Sub-Advisory Committee	Financial assistance program to provide low interest loans and grants to help low income individuals finance the costs for construction, refurbishment or service of their individual household water wells. May also include requests for financial assistance for SPW from Mojave River Pipeline. Integrates Projects 26 and 81R.	Integrates Projects 26 and 81R.	Conceptual			1							1						7,11	H	H	1	3
13R	Environmental & Recreation	Camp Cady: Tamarisk removal and riparian restoration program	Mojave Desert Resource Conservation District (MDRCD)	Invasive species (tamarisk) removal, expansion/improvement of endangered Mohave tui chub habitat and implementation of a sustainable engineered riparian habitat irrigation system.		Implementable Project			2				1			~~2~~	2	~~2~~			8	H	M	2	1
118	Conservation & Education	Weather Based Irrigation/Completion of Demonstration Garden Project	Barstow Community College	This proposed project introduces Smart Controllers to maximize irrigation control of water use during the extreme environment condition and helps to manage water use in a normal environment as well. Smart Controllers would create an efficient schedule and give the ability to accommodate micro bursts and downpours of rain. The completion of the Barstow Community College garden project will give way to a High Desert regional concept.		Implementable Project				1			2				1				2, 12	H	M	2	1
1001	Wastewater / Recycled Water	Sewer Lift Station or Reverse Osmosis Treatment Plant	City of Victorville	The lift station is preferred over the RO plant due to the ongoing operational and maintenance costs associated with RO. The RO project could integrate with other recycled water projects in the region, such as with the City of Adelanto; however, VSD 4 lift station is preferred over this project due to the ongoing operational and maintenance costs associated with reverse osmosis. Integrates Projects 17 and 61.	Integrates Projects 17 and 61.	Conceptual; Implementable	1	1	2		2	1			1				1		5,10,14	H	M	2	1
1006	Individual or Small System Improvements	Capital Water Main Replacement Program	Hi-Desert Water District	This project would include the replacement of 46,940 lineal feet of old; undersized steel water mains with that of PVC constructed water mains. During installation, new, properly spaced isolation valves and fire hydrants would also be installed along with service lines. Construction of this infrastructure would be in various areas within the Town of Yucca Valley. Integrates Projects 87-91.	Integrates Projects 87-91.	Conceptual	2	2	2	2	2	1						~~1~~			5,2	H	M	2	1
21	Other	Dairy Nitrate Reduction	Mojave Desert Resource Conservation District (MDRCD)	Obtain funding – to be matched with NRCS/USDA funding – a possible 25% contribution – to: 1) Help dairies pay to haul manure off-site – likely to fields distant from shallow groundwater and surface waters. 2) Help fund infrastructure designed to apply waste pond water directly to adjacent fields via irrigation systems, etc. – alleviating direct percolation to groundwater. Requires manure "manifest" to track movement and use of nutrients. BMP to effectively use nutrients – applied at agronomic rates. 3) Feasibility study to determine alternate uses of manure for fuels – i.e.: composting/digestion/gasification – what can be done on a regional basis – work in conjunction with VVWRA, etc.		Implementable Program			2				~~2~~	2	1	1	2	~~2~~	2		10,11	H	M	2	2
34	Other	Hydroelectric Facility at Deep Creek to generate power for R3 ground water wells	Mojave Water Agency	The Deep Creek Outlet to the Mojave River can generate electrical power for use by the Agency to power the R3 groundwater wells. Two options are possible: 1) construct Groundwater wells at Deep Creek FCF and extend the R3 pipeline to these wells. Our run Conduit and conductors from Deep Creek to the R3 Groundwater wells.		Conceptual					~~1~~	1								5	H	M	2	2
49	Environmental & Recreation	Mojave River Walk Trail	City of Victorville	Walking / biking trail along the Mojave River. Combined recreational and public education project involving multiple participating agencies.		Conceptual			1	2			1			~~1~~	1				12,8,7	H	M	2	2
65	Water Supply / Recharge	State Water Project Utilization & Efficiency Strategy	Mojave Water Agency	Conceptual program with an overall goal to make the best use of the Region's State Water Project resources for maximum benefit to the Region. This would be an ongoing program with many possible elements and would explore a variety of opportunities to achieve the goal, including transfers, exchanges, purchases and sales of SWP water in concert with conjunctive		Conceptual	2				1	1			2	2					4,5	H	M	2	2
72	Individual or Small System Improvements	Twentynine Palms Fluoride Treatment Plant Expansion	Water Supply / Recharge	The District maintains a fluoride variance from DPH due to naturally occurring, high levels of fluoride in the groundwater, the District's only source of supply. The variance expires in ten years and additional source development is needed to mitigate the water quality changes. In the Mesquite Springs aquifer of the Twentynine Palms Groundwater basin, a second Fluoride Treatment Plant is needed for system redundancy. Project engineering will determine the size and volume of the plant that will produce the most cost-effective results for additional source development within the aquifer, protecting safe yield and preventing drawdown of the Indian Cove and Fortynine Palms aquifers.		Study, Design, Construction	1	1	2						1	~~2~~					10,3,1	H	M	2	2
1009	Baja / Ag Issues	Baja Sustainability Initiative #3 (Channel Dredging, Flood Control, Riparian Protection and Vegetation Removal)	Mojave Desert Resource Conservation District (MDRCD)	The Mojave River is choked with vegetation causing channel capacities to be exceeded during major flood events. Removing the vegetation and/or excavating the channel would increase the carrying capacity and decrease the flood risk for select areas. By allowing flood water to flow without restrictions, areas downstream might have a higher probability to be naturally recharged during small and large storm events. Design and reinstate a channel(s) through project area to carry storm flows to reduce flooding of improved parcels. Integrates Projects 16 and 53.	Integrates Projects 16 and 53.	Design/Implementable		1					1	1		~~1~~					9,8	H	M	2	2
1010	Conservation & Education	JBWD CUWCC Compliance Project	Joshua Basin Water District	Urban water management planning requires planning, design and implementation of a variety of best management practices for the purposes of increasing conservation, educating the community on water issues, and reducing wasteful water practices. A large component of the proposed project is a system-wide leak detection program. Integrates Projects 39 and 99.	Integrates Projects 39 and 99.	Conceptual	1	1	2	1	2	1				~~2~~	1				2,1,3	H	M	2	2
1014	Conservation & Education	Water University	Mojave Water Agency, Alliance for Water Awareness and Conservation, JBWD	The Water University Program is a comprehensive educational and outreach program targeting teachers, real estate professionals, the business community, as well as the general public. This four-component program would offer curriculum for teachers to use in their classrooms for use in science and social studies classes. The second education component targets Fire Departments with education materials and presentations for greater water efficiencies. The third component targets businesses and the real estate community with water conservation information including native landscaping tips, and free water savings devices for the home including sprinkler nozzles, shower heads, etc. The fourth component targets irrigation supervisors and contractors by offering a certificate program in water efficiency. This component would include regular workshops and education materials. The final component is aimed at homeowners to better educate them on water conservation. Integrates Projects 30, 78, and 79.	Integrates Projects 30, 78, and 79.	Implementable Project			1	2	2		2				1			2	12	H	M	2	2
1015	Flood Management - County	SB County Integrated Flood Projects	SB County Flood Control District	Flood projects throughout the Region all completed by SB County Flood Control District. Integrates Projects 108-114.	Integrates Projects 108, 110-114.	Conceptual and Design			1					1	2						9	H	M	2	2

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128	Water Quality	Transition Zone Water Quality Study	MWA	Water quality constituents have impacted beneficial use of groundwater in the region around the Helendale fault. Water quality anomalies were further identified in the 2003 URS Transition Zone Report and the 2007 Schlumberger Salt Model Report. The dataset has matured since these earlier studies were completed and this would be a good point to take another look at the data and try to further our understanding of the groundwater chemistry affecting this area. Work could include water quality testing, drilling and well installation, geophysical investigations, and any other scientific techniques that may result in a better understanding of the water quality conditions in the region.		Conceptual							2		1		2					10	H	M	2	2
129	Individual or Small System Improvements	Well Abandonment	Hi-Desert Water District	HDWD has identified 40 private and public wells within the Warren Valley Subbasin that require either destruction or protective measures to be installed. This project focuses on providing funding to well owners to complete the necessary work in an effort to protect the groundwater basin.		Implementable			1			2			1			~~1~~			10	H	M	2	2
130	Individual or Small System Improvements	Sewer Lift Station Nos. 1 and 3 Improvements	Running Springs Water District	The Running Springs Water District's Sewer Lift Station Nos. 1 and 3 are more than 40 years old and in need of significant improvements to increase reliability and reduce the potential for sanitary sewer overflows into the Deep Creek watershed. The improved reliability to these critical sewer lift stations will increase the water quality impacts to the headwaters of the Mojave watershed.	Or could potentially integrate with 1003	Implementable							1		1	1					10	H	M	2	2
27	Flood Management	Dry Well Installation Program, Town wide, Town of Apple Valley	Town of Apple Valley	If awarded funding, the project would move directly forward with preparation of bid packages to advertise and award a contract for the next phase of program implementation. The contract will construct as many dry well structures as funding will allow. To date approximately 77 shallow dry well structures have been constructed in Apple Valley and are successfully alleviating flooding where they exist. The underlying layers of natural gravel and sand absorb water almost as fast as it can be filtered and introduced into the wells. The Town of Apple Valley Dry Well Standard Design calls for a pre-manufactured dry well structure, and is a combination of an inlet treatment/filtration chamber, (similar to many being used in coastal areas for NPDES related storm water runoff treatment prior to discharge into a water body), combined with a second chamber connected to a shallow lined and perforated well or pit that extends down through the surface layer of impervious soils. The structures average between 35 and 40 feet deep, but are only as deep as required to reach sandy gravelly soil.		Implementable Program	1	1		~~2~~	1	1		1	1	~~1~~	~~2~~					9,1,3	H	M	2	3
36R	Individual or Small System Improvements	Infrastructure Improvements Projects	Joshua Basin Water District	Design and Construction of infrastructure replacements to improve efficiency and increase conservation of resources. Particular emphasis on water booster station improvement to reduce energy impacts (i.e. reduce in-rush impacts on pump start-up and increased efficiency of equipment.		Planning, Design, Construction	~~1~~	~~1~~	2		~~2~~	1				~~1~~		2			5	H	M	2	3
38R	Wastewater / Recycled Water	JBWD Central Wastewater Treatment Plant Project	Joshua Basin Water District	Design and construction of required central WWTP to include plant siting, WWTP design, trunk sewer alignment and design, environmental compliance, permitting and construction. Central WWTP provides long-term control of nitrate contamination in groundwater basin, as well as other contaminants identified in past studies.		Conceptual	2	1	2	~~2~~	1	1			1	~~1~~			2		5,10	H	M	2	3
40R	Conservation & Education	JBWD Graywater & Rainwater Harvesting Project	Joshua Basin Water District	Development of design standards and funding of on-site collection facilities for capture of graywater and rainwater by individual property owners located in the JBWD service area. Water collected would be used for gardening and other non-potable uses, reducing dependence on groundwater. Public education is an important component of the project and will include printed materials and demonstration models of collection facilities. Project compliments the District's new imported		Conceptual	2	2	2	2		1		2		~~2~~	1			~~2~~	5,12	H	M	2	3
41R	Flood Management	JBWD Stormwater Recovery Project	Joshua Basin Water District	Capture and retain stormwater from local arroyos into the new recharge basin to enhance percolation potential into the groundwater basin. Includes studies to determine quantities of stormwater that could be recharged, engineering feasibility for retention and percolation and environmental review. Project would increase groundwater basin recharge and minimize		Feasibility Study	1		2		1	1		1		~~2~~		~~2~~			4,5,9	H	M	2	3
58	Water Supply / Recharge	Regional Aquifer Recharge Capacity	Mojave Water Agency	MWA has very little off-river aquifer recharge capacity. During wet periods, when SWP water is plentiful and "cheap," the river is likely to be full and unable to accept recharge. MWA needs to be able to accept large a quantity of water in a relatively short (wet) period. This could be accomplished through a variety of infrastructure. Once such infrastructure combination could include surface water impoundment for later distribution to recharge ponds, ASR injection wells, etc... In addition this project could easily be expanded to a water bank with an aqueduct pump-back component for "buy low/sell high" of banked water.		Conceptual	1	1			1	1	~~1~~	~~2~~	~~1~~					1	4,5	H	M	2	3
59	Flood Management	Regional Flood Control/Flood Management Plan	Mojave Water Agency	Prepare a multi-jurisdictional, regional flood control / flood management plan that integrates flood data and information, coordinates flood control efforts and infrastructure, and seeks to integrate flood management and water supply projects across the Mojave IRWM Region.		Conceptual	2					1	2	1	2			~~2~~			9,5	H	M	2	3
63	Flood Management	Sheep Creek Wash Storm Water	Phelan Piñon Hills Community Services District	The Sheep Creek Wash Storm Water Retention project is intended to capture storm water and recharge the Oeste Basin. The intent is help minimize storm water damage at the same time generate additional water consumption that would benefit the District anticipating the possibility of the additional ramp down on pumping from the basin from the current 80% to the anticipated 60%. This conceptual plan would require diverting storm water flows from Sheep Creek Wash to a proposed recharge basin. Storm water flows would be monitored at the inlet of the basin. A proposed monitoring well will also be used to monitor static levels.		Conceptual	2	1	1	~~2~~	1	1		1	1		~~1~~		~~2~~	2	9,5,7	H	M	2	3
64	Flood Management	Silver Lakes Association Stormwater Debris - retention basin	Silver Lakes Association	Design and construction of a reinforced concrete storm water debris interceptor where Buckthorn Wash bisects the Silver Lakes Golf Course. Approx. size (LWD): 60' x 10' x 6'		Conceptual, Design, Construct								1	1		~~2~~				9,10	H	M	2	3
68R	Flood Management	Storm Water Retention and Percolation in Hondo Wash Ruby Wash	Bighorn Desert View Water Agency	Retain storm flows in Hondo Wash and other drainages in the area to enhance percolation potential into Ames groundwater basin (Pipes Subbasin) and provide a mechanism for flood control that does not currently exist. Includes studies to determine quantities of flow that could be captured annually, engineering feasibility for retention and percolation, and environmental impact overview (Initial Study). Water could be retained behind shallow berms or even dam structures along narrow sections of the wash. Water that is successfully captured and percolated minimizes downstream flood damage from scouring and preserves a resource that is otherwise wasted (flows to dry lake bed for evaporation).		Conceptual	1	2	1	~~1~~	1	1	~~2~~	1	~~2~~	~~1~~	~~2~~	~~2~~	2		9,5,7	H	M	2	3
82	Water Supply / Recharge	Wrightwood Imported Water Project	Golden State Water Co - Wrightwood	Install a well near Desert Front Road, including a pump station and transmission main to import water from the lower elevations south of the town into the higher elevations in the north. Includes study, design and facilities.		Study, Design, Construction	1	~~1~~	2	~~2~~	~~1~~	1	~~2~~	~~2~~	~~1~~	~~1~~	~~2~~	~~1~~	~~2~~	~~2~~	5	H	M	2	3

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Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Comments/ Review Questions	Project Type	Prioritized Objectives: 1 Balance Supply & Demand	3 Maintain Stable GW Basins	7 Support & Assist DAC's	2 Improve Water Use Efficiency	4 Reduce Reliance on Delta	5 Optimize Use of Assets	8 Improve Environmental Stewardship	9 Improve Floodplain Mgmt.	10 Preserve Water Quality	11 Obtain Financial Assistance	12 Improve Public Awareness	13 Establish Reliable Maintenance Funding	14 Increase Use of Recycled Water	6 Prevent Land Subsidence	Primary Objectives	Importance	Urgency	Tier for Ranking	Get Real Rank
86	Individual or Small System Improvements	Alta Loma Reservoir Replacement	Hi-Desert Water District	Increase of 1 MG in water storage capacity to ensure adequate emergency storage (current 250k deficit).		Conceptual						1						~~1~~			5	H	M	2	3
97	Wastewater / Recycled Water	Adelanto Reclaimed Water Delivery Infrastructure	City of Adelanto	Adelanto recently completed expansion of wwtp from 2.5 mgd to 4 mgd. Put in place option to construct tertiary facilities if potential users of RW become available. Currently, the obvious downstream user is the City of Victorville and the HDPP power plant. This project is a feasibility study to consider options for expanding the wwtp to tertiary and evaluating potential rw users for viability both hydraulically and need.		Conceptual			2		2	2			1	~~1~~	~~2~~			1		10,14	H	M	2	3
98R	Wastewater / Recycled Water	Rehabilitation of Sewage Lift Station	City of Adelanto	Install new larger sewage lift station pit and pump station. Install new pumps and SCADA to same. Install new liner, SCADA communications. Work needed to prevent Sanitary Sewer Overflows.		Conceptual									1	~~1~~					10	H	M	2	3
105	Wastewater / Recycled Water	Wrightwood Sewer Plan	MWA/Lahanton RWQCB/DPH grant	The project is to develop a sewer plan for the Wrightwood Community.		Planning	2	2				2	1		1	~~1~~					10,1	H	M	2	3
115	Environmental & Recreation	Land and Water Rights Acquisition	California Department of Fish & Wildlife	Acquire voluntary water transfers or water rights to reduce water use. Acquire riparian habitat along the Mojave River either in fee title or through the purchase of a conservation easement.		Implementable Program	1	1	2	1	2	2	1	2	1	~~1~~	~~2~~	~~2~~	~~2~~	2	8,2	H	M	2	3
117	Other	Water Supply and Quality	San Bernardino County Special Districts Department	Water quality and supply projects to meet existing and emerging regulatory requirements. Development of strategically constructed facilities to support and mitigate regional water quality and supply issues.		Conceptual; Feasibility			1			2			1	~~1~~		~~1~~	2		10,7	H	M	2	3
121	Individual or Small System Improvements	Rehabilitate pre-1960 pipelines	Lake Arrowhead Community Services District (CSD)	Miles of old wastewater pipelines are in need of rehabilitation.		Implementable Project	~~2~~	~~2~~	2	~~1~~	~~2~~	2	2	~~2~~	1	~~2~~	~~2~~	~~2~~	~~1~~	~~2~~	10	H	M	2	3
122	Wastewater / Recycled Water	Effluent Outfall Replacement Project	Lake Arrowhead CSD	Replace and upsize the existing effluent outfall pipeline, which travels approximately ten (10) miles and drops 1,200 feet in elevation to property owned by LACSD in Hesperia.		Conceptual	1	1	2	~~2~~	~~1~~	1	2	~~2~~	1	~~1~~	~~1~~	~~1~~	1	~~2~~	10,14	H	M	2	3
1005	Conservation & Education	Regional Demonstration Garden Program - Multiple locations	Mojave Water Agency, Newberry Springs Community Services District (CSD), City of Victorville	Construction of a variety of demonstration gardens to engage and educate visitors and communities in solutions for creating beautiful and environmentally smart landscapes. Design would include development aimed at local biomes, taking in climate and soil types, and the need to demonstrate gardening, smart agriculture, irrigation infrastructure, etc. These gardens would be similarly improved in regards to education and information availability, for example, signage, information kiosks, educational material, and QR readers. Integrates Projects 5, 23, 33, and 123.	Integrates Projects 5, 23, 33, and 123.	Conceptual and Implementable	2	2	1	2			1		2	~~2~~	1				12,2,8	H	M	2	3
1008	Water Supply / Recharge	R-Cubed Enhanced Purveyor Supply System	Mojave Water Agency	Design and install conveyance from R-Cubed to purveyors not currently connected to R-Cubed. This may be through direct conveyance or via interconnections with purveyors currently receiving R-Cubed water to "wheel" water to purveyors adjacent to their systems. The project includes study, design and facilities. Integrates Projects 37, 96, 124.	Integrates Projects 37, 96, 124.	Conceptual	2	2	2			1						~~1~~			5	H	M	2	3
125	Flood Control	Gage Tributary Washes	MWA	There has been ongoing discussion for years regarding storm water flow volume and basin contribution from ungagged desert washes. Simple gages could be installed at road under-crossings. These crossings often have concrete lined channels which makes them ideally suited as ready-made weirs for ephemeral stream gages. Place a pressure transducer in a one-foot steel pipe with holes drilled in it and bolt it to the side of the concrete channel and key washes could be accurately gaged for storm flow.		Conceptual and Implementable	2					1	2	2	2						5	H	M	2	3
126	Conservation & Education	Community Park and Demo Garden	Helendale CSD	Helendale Community Park is only partially constructed. Current irrigation is using temporary agricultural pipe connected to our Ag well to irrigate a small section of grass. Project installs and maintains grass fields which will mitigate the blow sand and provide a community park play area for under-served children within the CSD boundary.		Implementable	~~1~~	~~1~~		1		2			~~1~~	~~1~~	1	~~2~~			12	H	M	2	3
127	Individual or Small System Improvements	Water Well No. 10	Helendale CSD	Design and construction of new water supply well (Designated as Well #10) to replace old low-volume production wells which also are showing Gross Alpha emitters as well as arsenic contamination. The project includes the purchase of a well site, drilling of the well, full equiping and testing, easements for a transmission line from well site to connect to current southern terminous of the District water system.		Conceptual	~~1~~	~~1~~				2			1	~~1~~	~~1~~	~~1~~			10	H	M	2	3
31	Wastewater / Recycled Water	Helendale Community Services District (CSD) - WWTP Effluent Distribution System	Helendale Community Services District	Design and construction of "Purple Pipe" pipeline system to convey effluent water to nearby Golf Course Irrigation system that currently uses pumped groundwater.		Conceptual	~~1~~	~~1~~		~~2~~	~~1~~				2	~~2~~	~~2~~		1		14,10	M	M	3	3

** Projects that are highlighted yellow are Integrated Projects, with the combined projects listed under the "Comments/Review Questions" Column for the Project.

Notes: 1. Project Numbers >#103 were submitted in Round #2.

2. Project Numbers >1,000 are Integrated Projects.

3. Any Project Submittals that were Revised after Round #1, have their Project Numbers changed to ##R to indicate a revision has been made. For example, Project #10 became Project #10R.

4. Each project's contribution to Plan Objectives is shown under the Prioritized Objectives section. A number 1 shown under a specific Plan Objective indicates the proposed project makes a primary contribution to that objective. A number 2 indicates the proposed project makes a secondary contribution to that objective. The Consultant Team reviewed the project submittals and adjusted correlation between projects and Plan Objectives for consistency. Numbers shown in red with strikeout indicate the project submittal did not support contribution to that particular Plan Objective. Numbers shown in green with underline indicates project submittal suggests contribution to that particular Plan Objective even though the project proponent did not mark it. Numbers shown in blue with a double underline indicate that the level of contribution was adjusted.

Get Real Ranking completed by Project Team and is defined as "a holistic view of the project's readiness to proceed with respect to financial backing and level of support" with a "1" being "yes, the project will proceed." A "2" being "maybe the project will proceed. There is momentum and interest in the project." And a "3" being "not sure if the project will go forward yet."

Appendix D.2d

Summary Table of Projects by Priority

Updated Projects Arranged by Proposed Priority*

Tier 2 (L,H)	Tier 1 (M,H)	Tier 1 (H,H)
		GRI = 1 18R – Commercial / Industrial / Multi-Family Cash for Grass Program 60R – Reorganization between 2 Small Water Agencies (BDVWA and CSA 70 Zone W-1 [Landers]) 92R – Wastewater Reclamation Project (Hi-Desert WD) 93 – Apple Valley & Hesperia Subregional Water Reclamation Facilities - VVWRA 1011 – Antelope Valley Wash / Ranchero Basin Recharge Ponds **GRI = 2** 19 – Conceptual Planning for Hinkley's Community Drinking Water System 32 – Helendale CSD Tertiary Treatment Upgrade 57 – Recycled Water Distribution System (City of Hesperia) 95 –Adelanto Pearmain Relief Sewer Line 106 – Sheep Creek Recharge Basin & Two Wells 116 – Replacement Water Supply for Perchlorate / Nitrate Affected GW – Barstow Area 1003 – Assistance Program for Small Drinking Water Systems 1004 – Baja Sustainability Initiative #1 (Ag Water Conservation & Base Annual Production Right Acquisition Program) 1012 – Cedar Street / Bandicoot Detention Basin (City of Hesperia)
Tier 4 (L,M)	**Tier 3 (M,M)**	**Tier 2 (H,M)**
		GRI=1 13R – Camp Cady: Tamarisk Removal & Riparian Restoration Program 118 – Weather Based Irrigation / Completion of Demonstration Garden Project (Barstow CC) 1001 – Sewer Lift Station or Reverse Osmosis Treatment Plant (City of Victorville) 1006 – Capital Water Main Replacement Program (Hi-Desert WD) **GRI=2** 21 – Dairy Nitrate Reduction 34 – Hydroelectric Facility at Deep Creek for R3 Wells

		49 – Mojave River Walk Trail 65 – State Water Project Utilization & Efficiency Strategy 72 – Twentynine Palms Fluoride Treatment Plant Expansion 1009 – Baja Sustainability Initiative #3 (Channel Dredging, Flood Control, Riparian Protection & Vegetation Removal) 1010 – Joshua Basin WD CUWCC Compliance 1014 – Water University 1015 – SB County Integrated Flood Projects 128 – Transition Zone Water Quality Study 129 - Well Abandonment 130 - Sewer Lift Station Nos. 1 and 3 Improvements
Tier 4 (L,L)	**Tier 4 (M,L)** **GR=3** 31 – Helendale CSD – WWTP Effluent Distribution System	**Tier 3 (H,L)** **GR=3 from (H,H)** 3R – Ames/Reche GW Storage & Recovery Program – Phase II Expansion 22 – Deep Creek Off-River Recharge and Storage Basins 29 – Forks Dam Storm Water Detention 35 – Indian Cove Stormwater Capture & Recharge 42R – Johnson Valley Pressurized Water System 54 – Oro Grande Wash GW Recharge Project 56R – Alto Subarea Regional Aquifer Storage & Restoration (ASR2) 62R – Water Conservation Ordinance 66R – State Water Project Water Treatment Plant with R3 73 – Twentynine Palms GW Protection Plan Septic System Mgmt. Element (SSME) 74R – Water Infrastructure Restoration Program: Pipeline Installation / Replacement (Bighorn-Desert View) 94R – Fluoride and Arsenic Treatment (City of Adelanto) 101 – Cushenbury Flood Detention Basin 102 – Local Wastewater Treatment Plant (Lucerne) 103 – Lucerne Valley Recharge Ponds 1002 – Policies Requiring Mods to the Mojave Basin Area Judgment 1007 – Baja Sustainability Initiative #2 (Baja Major Storm Diversion Network) 1013 – Baja Sustainability Initiative #4 (Well Assistance Program) **GRI = 3 from (H,M)** 27 – Dry Well Installation Program (Town of Apple Valley) 36R – Infrastructure Improvement Projects (Joshua Basin) 38R – Joshua Basin WD Central WW Treatment Plant

		40R – Joshua Basin WD Graywater & Rainwater Harvesting 41R – Joshua Basin WD Stormwater Recovery 58 – Regional Aquifer Recharge Capacity 59 – Regional Flood Control / Flood Management Plan 63 – Sheep Creek Wash Storm Water 64 – Silver Lakes Assoc. Stormwater Debris Retention Basin 68R – Storm Water Retention and Percolation in Hondo Wash Ruby Wash 82 – Wrightwood Imported Water 86 – Alta Loma Reservoir Replacement 97 – Adelanto Reclaimed Water Delivery Infrastructure 98R – Rehabilitation of Sewage Lift Station (City of Adelanto) 105 – Wrightwood Sewer Plan 115 – Land & Water Rights Acquisition (California Dept. of Fish & Wildlife) 117 – Water Supply and Quality (San Bernardino County Special Districts Dept.) 121 – Rehabilitate pre-1960 Pipelines (Lake Arrowhead CSD) 122 – Effluent Outfall Replacement Project (Lake Arrowhead CSD) 125 – Gage Tributary MWA Washes 1005 – Regional Demonstration Garden Program – Multiple Locations 1008 – R-Cubed Enhanced Purveyor Supply System

* Revised after the February 6, 2014 Stakeholder meeting.

Appendix D.2e

Table of Projects by Number and Title

Mojave Region IRWM Plan Project Number and Title

Project No.	Original Project No.	Project Integrated into Larger Project?	Project Title	Lead Agency/Organization
1	1	y, 1004	Agricultural Water Conservation Program	Mojave Water Agency (MWA)
2	2	y, 1002	Allocation of water ?	Submitted by Dean VanBasetlaar
3R	3	n	Ames/Reche Groundwater Storage and Recovery Program - Phase II Expansion	MWA, Bighorn-Desert View Water Agency (BDVWA), and Hi-Desert Water District (HDWD)
4	4	y, 1011	Antelope Valley Wash Detention/Recharge Ponds	City of Hesperia/MWA
5	5	y, 1005	Aquaponics Demonstration Gardens	MWA
6	6	y, 1003	Arsenic and Metering Project	Bar-Len Mutual Water Company
7	7	y, 1003	Assistance Program for Small Drinking Water Systems	MWA
8	8	y, 1007	Baja Major Storm Diversion Network	MWA
9	9	y, 1007	Baja Storm Water Diversion and Retention Project	Baja Sub-Advisory Committee
10	10	y, 1004	Baja Subarea Base Annual Production Right (BAP) Acquisition Program	Baja Sub-Advisory Committee
11R	11	y, 1002	Baja Water Budget	
12	12	n	Cadiz Valley Water Conservation, Recovery, and Storage Project	Cadiz Inc.
13R	13	n	Camp Cady: Tamarisk removal and riparian restoration program	Mojave Desert Resource Conservation District (MDRCD)
14	14	y, 1012	Cedar Street Detention/Recharge Basin	City of Hesperia/MWA
15	15	y, 1003	Center Water Company Wells, Infrastructure & Storage Project	Center Water Company
16	16	y, 1009	Channel Dredging and Vegetation Removal	Baja Sub-Advisory Committee
17	17	y, 1001	City of Victorville VSD 4 Sewer Lift Station	City of Victorville
18R	18	n	Commercial/Industrial/ Multi-Family Cash for Grass Program	Alliance for Water Awareness and Conservation
19	19	n	Conceptual Planning for Hinkley's Community Drinking Water System	MWA/Lahanton Regional Water Quality Control Board (RWQCB) /Department of Public Health (DPH) grant per
20R	20	y, 1002	Continual rampdowns in the Baja Sub Basin	
21	21	n	Dairy Nitrate Reduction	MDRCD
22	22	n	Deep Creek Off-River Recharge And Storage Basins	MWA
23	23	y, 1005	Desert Demonstration Garden	Newberry Community Services District
24R	24	n	Desert Wash Protection -Watershed Enhancement	
25	25	y, 1004	Direct Delivery of State Project Water to Agricultural Uses (Baja Sustainability Initiative #1)	MWA
26	26	y, 1013	Domestic Water Well System Assistance Program	
27	27	n	Dry Well Installation Program, Town wide, Town of Apple Valley	Town of Apple Valley
28	28	n	Fair Taxation of Water Rights Acquired Outside the Original Adjudication	
29	29	n	Forks Dam Storm Water Detention	MWA
30	30	y, 1014	Groundwater Education Program	Baja Sub-Advisory Committee
31	31	n	Helendale Community Services District (CSD) - WWTP Effluent Distribution System	Helendale Community Services District
32	32	n	Helendale CSD Tertiary Treatment Upgrade	Helendale Community Services District
33	33	y, 1005	High Desert Demonstration Gardens	MWA
34	34	n	Hydroelectric Facility at Deep Creek to generate power for R3 ground water wells	MWA
35	35	n	Indian Cove Stormwater Capture and Recharge Project	Twentynine Palms Water District/Joshua Basin Water District (JBWD)
36R	36	n	Infrastructure Improvements Projects	JBWD
37	37	y, 1008	Interconnection with Apple Valley Ranchos Water Company	Golden State Water Co - Apple Vly South
38R	38	n	Central Wastewater Treatment Plant Project	JBWD
39	39	y, 1010	JBWD CUWCC Compliance Project - Leak Detection	JBWD
40R	40	n	Graywater & Rainwater Harvesting Project	JBWD
41R	41	n	Stormwater Recovery Project	JBWD
42R	42	n	Johnson Valley Pressurized Water System	BDVWA
43	43	y, 1007	Kane Wash Spreading Basins	MWA
44	44	y, 1003	Lucerne Valley Small Water Systems Feasibility Study	Lucerne Valley Economic Development Association (LVEDA)

Mojave Region IRWM Plan Project Number and Title

Project No.	Original Project No.	Project Integrated into Larger Project?	Project Title	Lead Agency/Organization
45R	45	y, 1003	Mesa Tank #4, Well #5, Well Generators, Booster Station Generator, etc.	Apple Valley Heights County Water District
46R	46	y, 1002	Mojave Water Basin Judgment and how it affects Baja	
47	47	y, 1007	Mojave River Baja Subarea Flood Control Basin Storage	MWA
48R	48	n	Mojave River Dam-Deep Creek Spillway Wetlands restoration	
49	49	n	Mojave River Walk Trail	City of Victorville
50	50	n	Morongo Basin Cooperative Projects	JBWD
51	51	n	Multi-Jurisdictional Technology Integration Project	JBWD
52	52	y, 1003	New Well - Kiowa Well No. 1	Golden State Water Co - Apple Vly South
53	53	y, 1009	Oro Grande Region Flood Control - Riparian Protection	MDRCD
54	54	n	Oro Grande Wash Groundwater Recharge Project	MWA
55R	55	y, 1004	Pipeline	Farmers Home Administration
56R	56	n	Alto Subarea Regional Aquifer Storage and Restoration (ASR2)	MWA
57	57	n	Recycled Water Distribution System	City of Hesperia
58	58	n	Regional Aquifer Recharge Capacity	MWA
59	59	n	Regional Flood Control/Flood Management Plan	MWA
60R	60	n	Reorganization between two adjacent small water agencies (BDVWA and CSA 70 Zone W-1 [Landers])	BDVWA
61	61	y, 1001	Reverse Osmosis Package Treatment Plant	City of Victorville
62R	62	n	Water Conservation Ordinance	County of San Bernardino
63	63	n	Sheep Creek Wash Storm Water	Phelan Piñon Hills Community Services District
64	64	n	Silver Lakes Association Stormwater Debris - Retention Basin	Silver Lakes Association
65	65	n	State Water Project Utilization & Efficiency Strategy	MWA
66R	66	n	State Water Project Water Treatment Plant in conjunction with R3 project	MWA
67R	67	y, 1002	Stipulated Pistachio Orchards	
68R	68	n	Storm Water Retention and Percolation in Hondo Wash Ruby Wash	BDVWA
69	69	y, 1003	Supervisory Control and Data Acquisition (SCADA) System for Operations and Security	BDVWA
70R	70	y, 1004	Supplemental Water	
71	71	n	The Baja Sustainability Initiative	MWA
72	72	n	Twentynine Palms Fluoride Treatment Plant Expansion	Twentynine Palms Water District
73	73	n	Twentynine Palms Groundwater Protection Plan Septic System Management Element (SSME)	Twentynine Palms Water District/City of Twentynine Palms
74R	74	n	Water Infrastructure Restoration Program: Pipeline Installation/ Replacement Project	BDVWA
75	75	y, 1007	Water retention in the lower basin	
76R	76	y, 1002	Water Transfers	
77	77	n	Water Treatment Plant	Golden State Water Co - Barstow
78	78	y, 1014	Water University	Alliance for Water Awareness and Conservation
79	79	y, 1014	Watershed Educational Awareness Project	MWA
80	80	y, 1003	Wellhead Treatment - Uranium	BDVWA
81R	81	y, 1013	Wells/declining water levels	
82	82	n	Wrightwood Imported Water Project	Golden State Water Co - Wrightwood
83	83	y, 1003	Yermo CSD - Upgrade Water Comp (?)	Yermo Community Services District
84	84	y, 1003	Yermo Hellbro	Yermo Community Services District
85	85	y, 1003	Yermo Marine Two	Yermo Community Services District
86	86	n	Alta Loma Reservoir Replacement	HDWD
87	87	y, 1006	Capital Water Main Replacement Program - Airlane Project	HDWD
88	88	y, 1006	Capital Water Main Replacement Program – Antelope Project	HDWD
89	89	y, 1006	Capital Water Main Replacement Program – Balsa Ave. Project	HDWD
90	90	y, 1006	Capital Water Main Replacement Program – Gates of Spain Project	HDWD
91	91	y, 1006	Capital Water Main Replacement Program – Pinion Dr. Project -	HDWD
92R	92	n	Wastewater Reclamation Project	HDWD

Mojave Region IRWM Plan Project Number and Title

Project No.	Original Project No.	Project Integrated into Larger Project?	Project Title	Lead Agency/Organization
93	93	n	Apple Valley & Hesperia Subregional Water Reclamation Facilities	Victor Valley Wastewater Reclamation Authority (VVWRA)
94R	94	n	Fluoride and Arsenic Treatment	City of Adelanto
95	95	n	Adelanto Pearmain Relief Sewer Line	City of Adelanto
96	96	y, 1008	Adelanto R-Cubed Connection	City of Adelanto
97	97	n	Adelanto Reclaimed Water Delivery Infrastructure	City of Adelanto
98R	98	n	Rehabilitation of Sewage Lift Station	City of Adelanto
99	99	y, 1010	JBWD CUWCC Compliance Project	JBWD
100	100	y, 1003	Thunderbird CWD Fluoride/Nitrate Treatment Plant	Thunderbird County Water District
101	101	n	Cushenbury Flood Detention Basin	MWA
102	102	n	Local Wastewater Treatment Plant (Lucerne)	San Bernardino County
103	103	n	Lucerne Valley Recharge Ponds	MWA
104	104	y, 1002	Baja Subarea Rampdown Equity	??
105	105	n	Wrightwood Sewer Plan	MWA/Lahanton RWQCB/DPH grant
106	106	n	Sheep Creek Recharge Basin and Two Wells	Phelan Piñon Hills Community Services District
107	107	y, 1012	Bandicoot Basin / Cedar Street Detention Basin	San Bernardino County Flood Control District
108	108	y, 1015	Oak Hills Basin / Hesperia Basin 2	San Bernardino County Flood Control District
109	109	y, 1011	Ranchero Basin / Antelope Valley Wash Recharge Ponds	San Bernardino County Flood Control District
110	110	y, 1015	Tussing - Juniper Basin	San Bernardino County Flood Control District
111	111	y, 1015	Donnell Basin	San Bernardino County Flood Control District
112	112	y, 1015	Seneca/Bus Barn Basin	San Bernardino County Flood Control District
113	113	y, 1015	Mesa Linda Basin	San Bernardino County Flood Control District
114	114	y, 1015	Amethyst Basin / Oro Grande Wash	San Bernardino County Flood Control District
115	115	n	Land and Water Rights Acquisition	CDFW
116	116	n	Replacement Water Supply for Perchlorate/Nitrate Affected Groundwater - Barstow Area	MWA/Lahanton RWQCB/DPH grant
117	117	n	Water Supply and Quality	San Bernardino County Special Districts Department
118	118	n	Weather Based Irrigation/Completion of Demonstration Garden Project	Barstow Community College
119	119	n	Direct Delivery of State Project Water to NRG Energy	
120	120	y, 1003	Bighorn-Desert View Water Agency Infrastructure, Emergency Preparedness and Storage Projects	BDVWA
121	121	n	Rehabilitate pre-1960 pipelines	Lake Arrowhead Community Services District (CSD)
122	122	n	Effluent Outfall Replacement Project	Lake Arrowhead CSD
123	123	y, 1005	Demonstration Garden Conceptual Projects	City of Victorville
124	124	y, 1008	Pipeline Interconnection - Apple Valley North and Apple Valley South Water Systems	Golden State Water Co
125	125	n	Gage Tributary Washes	MWA
126		n	Community Park and Demo Garden	Helendale CSD
127		n	Water Well No. 10	Helendale CSD
128		n	Transition Zone Water Quality Study	MWA
129		n	Well Abandonment	HDWD
130		n	Sewer Lift Station Nos. 1 and 3 Improvements	Running Springs Water District
1001	**	n/a	Sewer Lift Station or Reverse Osmosis (RO) Treatment Plant	City of Victorville
1002	**	n/a	Evaluate and consider potential modifications to the Judgment for the Baja Subarea	MWA
1003	**	n/a	Assistance Program for Small Drinking Water Systems	MWA, San Bernardino County Environmental Health Services
1004	**	n/a	Baja Sustainability Initiative #1 (Agricultural Water Conservation	MWA
1005	**	n/a	Regional Demonstration Garden Program - Multiple locations	MWA, Newberry Springs Community Services District (CSD), City of Victorville
1006	**	n/a	Capital Water Main Replacement Program	HDWD
1007	**	n/a	Baja Sustainability Initiative #2 (Baja Major Storm Diversion Network)	MWA
1008	**	n/a	R-Cubed Enhanced Purveyor Supply System	MWA
1009	**	n/a	Baja Sustainability Initiative #3 (Channel Dredging, Flood Control, Riparian Protection and Vegetation Removal)	MDRCD
1010	**	n/a	JBWD CUWCC Compliance Project	JBWD
1011	**	n/a	Antelope Valley Wash / Ranchero Basin Recharge Ponds	City of Hesperia/MWA
1012	**	n/a	Cedar Street / Bandicoot Detention Basin	City of Hesperia/MWA
1013	**	n/a	Baja Sustainability Initiative #4 (Well Assistance Program)	Baja Sub-Advisory Committee
1014	**	n/a	Water University	MWA, Alliance for Water Awareness and Conservation, JBWD
1015	**	n/a	SB County Integrated Flood Projects	SB County Flood Control District

** Indicates an Integrated Project.

Projects highlighted in this color indicate that the projects have been recommended to be screened out and not included in the list of projects in the adopted IRWM Plan.

Appendix D.3

Project List Updates

Appendix D.4

Detailed Project Descriptions

Project No. 3R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:	Ames/Reche Groundwater Storage and Recovery Program - Phase II Expansion				
Project Sponsor:	MWA & BDVWA				
If Joint Project, Other Partners:	HDWD (specifically seeking additional recharge capacity), BDVWA, County CSA 70 Zone W-1 (Landers) and Zone W-4 (Pioneertown)				
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		

Project Description
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)
Conceptual
Project Description (1 -2 sentences):
Expand the Ames/Reche Recharge Facility to accommodate the maximum potential delivery capacity of 3,000 AF/Yr. (currently permitted for 1,500 AF/Yr.). Pre-planning for expansion could include percolation tests to determine necessity for expansion of the existing BLM Lease, engineering design to minimize footprint and optimize percolation potential, CEQA and NEPA for Phase II.
Project Integration (Describe how the project does or could integrate with other projects in the Region):
Integrates into existing Ames/Reche Groundwater Storage and Recovery Program which was constructed to the benefit of multiple entities: Hi Desert Water District, County Service Areas W-1 (Landers) and W-4 (Pioneertown), Mojave Water Agency and Bighorn-Desert View Water Agency.
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):
MWA 2013/14 Integrated Regional Water Management Plan

Project Location					
Descriptive (Description of property location etc.):					
Existing facility is located within Pipes Wash where it intersects Winters Road (Tracy Blvd.).					
Latitude/Longitude - info available at:	http://geocoder.us/	Lat: 34.23696		Long: -116.414156	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	As needed				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				
Increases the ability of the participating entities to pre-store State Water Project supplies during seasons of surplus to reduce annual dependency on State Water Project.				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☑	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☑	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☑	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☑	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☑	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☑	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☑	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☑	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☑	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☑	Conjunctive Management and Groundwater Storage	☑	Recharge Areas Protection
☑	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☑	Water Transfers
☑	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 13R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **September 12, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Camp Cady: Tamarisk removal and riparian habitat restoration program		
Project Sponsor:	Mojave Desert Resource Conservation Dist (MDRCD)		
If Joint Project, Other Partners:	CA Dept. of Fish and Wildlife (Department); Quail Forever; Mojave Water Agency		
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Chuck Bell	760-964-3118		chuckb@sisp.net

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Implementable project

Project Description (1 -2 sentences):

Invasive species (tamarisk) removal, expansion/improvement of endangered Mohave tui chub habitat and implementation of a sustainable engineered riparian habitat irrigation system.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Continuation of current invasive species eradication/control being done in the Mojave River. Could work with a network of education/environmental stewardship programs in region.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Consistent with the Department's Mojave River Plan and focuses on Exhibit H riparian locations if the Mojave Basin Judgment.

Project Location

Descriptive (Description of property location etc.):

Camp Cady (Department property) - Newberry Springs

Latitude/Longitude - info available at: http://geocoder.us/	Lat:	Long:

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☐	In-Design ☑	Ready to Implement ☑	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:					

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*	500-1000 acre restoration			
Stormwater: *Reduction in Flood Damage (Y/N):*	Possible	Multi-benefit Y/N:	Yes	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*	No			
Environmental Stewardship/Public Awareness *Direct Benefits:*	Protect and Restore valuable riparian habitat on public lands			
Other: *(Describe X amount of benefit)*				
Protect/restore endangered Mohave tui chub ponds, provide food and cover for indigenous and migrating wildlife, improve waterfowl/game bird habitat. Improve the land for greater benefit to stressed flora and fauna, increase awareness, education and responsible multi-benefit use of high quality public lands.				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☑	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☑	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☑	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☑	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☑	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☑	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☑	Economic Incentives	☐	Surface Storage - Regional/Local
☑	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☑	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 18R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Commercial/Industrial/Multi-Family Cash for Grass Program		
Project Sponsor:	Alliance for Water Awareness and Conservation		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Nicholas Schneider	760-946-7038		nschneider@mojavewater.org

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Implemental Program

Project Description (1 -2 sentences):

This project would expand the scope of turf removal projects in the Mojave region. Currently, there is a $10,000 rebate cap for commercial, industrial, and mult-family units. This has discouraged larger scale landscape conservation projects. - The savings this project can expect is approximately 55 gallons of water saved per year per square foot of grass removed. this would increase our water savings throughout the region based on how much participation we recieve in the process.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

This project would expand the current Cash for Grass program, as well as serve as a companion program for a proposed commerical demonstration garden project proposed by MWA.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Project Location

Descriptive (Description of property location etc.):

The Mojave Water Agency boundaries.

Latitude/Longitude - info available at: http://geocoder.us/	Lat:		Long:	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):				
Estimated Cost:		<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Funding will determin the life of the program				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*				
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*				
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*	could be used to			
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☑	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☑	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities
☐ Drought Preparedness
☐ Use and Reuse Water More Efficiently
☐ Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐ Expand Environmental Stewardship
☐ Practice Integrated Flood Management
☐ Protect Surface and Groundwater Quality
☐ Improve Tribal Water and Natural Resources
☐ Ensure Equitable Distribution of Benefits

Program Preferences
☐ Include Regional Projects or Programs
☐ Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐ Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐ Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐ Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐ Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies	
☐ Agricultural Lands Stewardship	☐ Pollution Prevention
☐ Agricultural Water Use Efficiency	☐ Precipitation Enhancement
☐ Conjunctive Management and Groundwater Storage	☐ Recharge Areas Protection
☐ Conveyance - Delta, Regional/Local	☐ Recycled Municipal Water
☐ Desalination - Brackish & Seawater	☐ Salt & Salinity Management
☐ Drinking Water Treatment and Distribution	☐ Surface Storage - CALFED
☑ Economic Incentives	☐ Surface Storage - Regional/Local
☐ Ecosystem Restoration	☐ System Reoperation
☐ Flood Risk Management	☐ Urban Runoff Management
☐ Forest Management	☐ Urban Water Use Efficiency
☐ Groundwater/Aquifer Remediation	☐ Water Transfers
☐ Land Use Planning & Management	☐ Water-Dependent Recreation
☐ Matching Water Quality to Water Use	☐ Watershed Management

Project No. 19

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

Mojave Water Agency in cooperation/partnership Hinkley partnership for healthy living "HPHL"

Agency / Organization / Individual Address:

Mojave Water Agency
13846 Conference Center Drive
Apple Valley, CA 92307

Possible Partnering Agencies:

19816 Hwy 58 sp#9 Hinkley ca,92347

Name:*

Lester Steven White

Title:

Telephone:*

760-253-5288

Fax:

Email:*

lestersw@live.com

Website:

Project Name:*

Conceptual Planning for Hinkley's Community Drinking Water System

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: **Project Longitude:**

Location Description:	Hinkley is located in San Bernardino County, about eight miles west of the town of Barstow.

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

-
-
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

new

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Conceptual

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

This project is needed to evaluate the concept of designing, then building a water system for the disadvantaged community of Hinkley. Drinking water contamination resulting from the operation of a nearby Pacific Gas and Electric Company (PG&E) compressor station has devastated the community – many residents opted to leave resulting in community impacts such as closure of its school. After many years of controversy, serious health issues and legal battles, remediation measures are underway, including replacement water provided by PG&E for many residents. A community water system with a water source not impacted by the contamination plume would allow residents to resume independent control over its own water supply plus help to rebuild a sense of community in Hinkley.

Additionally, members of the community not affected by the chromium contamination rely on an unpredictable groundwater source supplied through individual private domestic wells. In many situations, groundwater levels drop each summer producing lower yield. At many locations, well are impacted by other contaminants such as arsenic, manganese, uranium, nitrates and total dissolved solids. These contaminants

likely are present due to a combination of natural and/or possibly past and present human land uses such as agriculture and septic systems.
The community of Hinkley is located in San Bernardino County, about eight miles west of the town of Barstow. Pacific Gas and Electric Company (PG&E) has operated a natural gas compressor station in Hinkley since 1952. From 1952 to 1965, hexavalent chromium-based corrosion inhibitor was added to water used in the cooling towers. The untreated cooling-tower water was discharged to unlined evaporation ponds and percolated to groundwater. The unlined ponds have since been closed, covered, and replaced by lined evaporation ponds. Total chromium (CrT) and hexavalent chromium (CrVI) concentrations exceeding the California drinking water standard of 50 parts per billion (ppb) total chromium have been detected in groundwater beneath and down gradient of the site since 1987. Currently, the plume extends over six miles northward from the compressor station, and concentrations of CrVI near the contamination source area are present in groundwater up to 4,500 ppb. Groundwater is the sole water supply source for the community of Hinkley.

PG&E provides bottled water to all residents within one mile of the chromium plume, and under Water Board orders, has begun a "whole-house" replacement water program for residences in Hinkley whose wells show detectable amounts of chromium. The whole-house water program uses ion exchange units combined with reverse osmosis filters at each household tap to provide water for all indoor domestic uses. PG&E is only required to maintain ion exchange for five year's. The water quality is required to meet all state and/or federal drinking water standards, and must contain no more than 0.06 ppb CrVI (the current laboratory detection limit for CrVI).

A water supply alternative to bottled water and "whole-house" replacement water is important to restore vitality to the community. Further, other members of the community not currently eligible for PG&E replacement water have no alternatives for limited water supply and poor water quality issues they are facing. Exploration into the concept of developing a community water system that draws water from a source not affected by the chromium plume is needed.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

Project Name: Conceptual Planning for Hinkley's Community Drinking Water System

Project Concept: Evaluate the concept of designing, then building a water system for

the disadvantaged community of Hinkley.

Project Description: Evaluate the concept of a community water system that draws water from a source of water that is not affected by the chromium plume. The water source must not be affected by plume expansion, remedial byproducts, or groundwater drawdown for the lifetime of the source and must be able to meet the water quality requirements. Water systems options, estimated costs and potential financing mechanisms will be included as part of the project. At least one community meeting will be conducted to present project results and to raise community awareness of a potential future water system.

Options for the water supply to be evaluated include (but are not limited to):

- Use of wells upgradient or otherwise unaffected by the chromium plume or remediation, combined with a system of pipelines to water recipients. For example, wells near the Mojave River are upgradient of the chromium plume, are consistently productive, and could be potential candidates for a well source. There may be naturally-occurring constituents, such as arsenic, that might require pre-treatment before providing as a drinking water system.
- Use of a connection to Golden State Water Company which could involve an estimated 12-15 mile pipeline to tie into.
- Use of a connection to the Mojave Water Agency (MWA) recharge pipeline located along Community Blvd. The MWA recharge pipeline derives water from the California aqueduct and MWA would have to acquire adequate rights to water to provide it as local water supply. If this water is unable to meet drinking water standards in its original state, it may require treatment before distribution as a water source. This option also requires an additional water supply source to serve as a contingency if the MWA water cannot be provided since it is not guaranteed to be available.

In addition to evaluating the technical feasibility of developing a safe and reliable water source, the project will also evaluate potential challenges to implementing a water system in a small community like Hinkley such as:

- According to the EPA, very small systems (those serving 25 to 500 people) have the largest number of violations (mostly monitoring/reporting violations), and they experience one maximum Contaminant Level Violation for every 80 people serve, which is the highest ratio of all system service population categories. By comparison, large urban systems (serving more than 100,000 people) experience one Maximum Contaminant Level violation for every 200,000 people service (EPA 2012b)[1].
- The California Department of Public Health (CDPH) has regulatory authority over community water systems. Under the provisions of Section 116330 of

[1] See http://www.epa.gov/nrmrl/wswrd/dw/smallsystems/regulations.html.

the California Health and Safety Code, CDPH has delegated approval of small water systems with less than 200 connections to local primary agencies, which in this case would be the San Bernardino County Public Health Department, Division of Environmental Health Services. A permit application for a community water system would require comprehensive technical, managerial, and financial assessments to gain CDPH (if more than 200 connections) or San Bernardino County (if less than 200 connections) approval. In order to be approved, small water systems must demonstrate that they can be sustainable for the long term.

- An additional concern is the long lead time to implement a community water system, given the approval and review process, and more extensive construction activities than other options, which could take as long as 5 years.
- Hinkley is dominated by rural residences, many of which are highly dispersed, which increases the amount of per connection piping, pumping, and construction costs.
- Some individuals in Hinkley may prefer a community water system, but other individuals may prefer the independence of their own well, which may complicate the implementation.

This project will include cost estimates of all options evaluated. Possible financing mechanisms for a community water system will also be included as part of this project. Lastly, the project will include at least one community meeting to present project results and to raise community awareness of a potential future water system.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Mojave Groundwater Basin – Centro Sub-Basin
-
-
-

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

- Final EIR Comprehensive Groundwater Cleanup Strategy for Historical Chromium Discharges from PG&E's Hinkley Compressor Station,San Bernardino County (April 2013)
- Cleanup and Abatement Order No. R6V-2008-0002-A4 (as amended)
- Lahontan Regional Board Staff Report -- Background Chromium Study; Pacific Gas and Electric Company Compressor Station; 35863 Fairview Road; Hinkley (August 2008)

Feasibility Study Status Report Pursuant to Ordering Paragraph 2.b. of

- Amended Cleanup and Abatement Order No. R6V-2011-0005A1

How do you rate the technical feasibility of the proposed project?

X High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	☐ Primary	☐ Secondary	x NA	
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	☐ Primary	☐ Secondary	x NA	
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	x Primary	☐ Secondary	☐ NA	This project will evaluate the concept of designing, then building a water system for the disadvantaged community of Hinkley
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☐ Primary	☐ Secondary	x NA	
9. Improve stormwater management throughout the Plan area.	☐ Primary	☐ Secondary	x NA	
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	☐ Secondary	x NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	☐ Primary	☐ Secondary	x NA	
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	☐ Primary	☐ Secondary	x NA	

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	x Secondary	☐ NA	This project will identify and evaluate the development of a small community water system to supply safe and reliable water source.
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	☐ Secondary	x NA	
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	☐ Primary	☐ Secondary	x NA	
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	☐ Primary	x Secondary	☐ NA	Costs and possible financing mechanisms for a community water system will be included as part of this project.
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	x Secondary	☐ NA	The project will include at least one community meeting to present project results and to raise community awareness of a potential future water system.
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	X NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	☐ Secondary	x NA	Agricultural Water Use Efficiency
☐ Primary	☐ Secondary	x NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	x NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	x NA	System Reoperation
☐ Primary	☐ Secondary	x NA	Water Transfers
☐ Primary	☐ Secondary	x NA	Other (Please State):_____
Increase Water Supply			
☐ Primary	☐ Secondary	x NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	x NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	x NA	Precipitation Enhancement
☐ Primary	☐ Secondary	x NA	Recycled Municipal Water
☐ Primary	☐ Secondary	x NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	x NA	Other (Please State): _____
Improve Water Quality			
xPrimary	☐Secondary	☐ NA	Drinking Water Treatment and Distribution
☐ Primary	☐ Secondary	x NA	Groundwater/Aquifer Remediation
☐ Primary	x Secondary	x NA	Matching Quality to Use
☐ Primary	☐ Secondary	x NA	Pollution Prevention
☐ Primary	☐ Secondary	x NA	Salt and Salinity Management
☐ Primary	☐ Secondary	x NA	Urban Runoff Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	x NA	Agricultural Lands Stewardship
☐ Primary	☐ Secondary	x NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	☐ Secondary	x NA	Ecosystem Restoration
☐ Primary	☐ Secondary	x NA	Forest Management
☐ Primary	x Secondary	x NA	Land Use Planning and Management
☐ Primary	☐ Secondary	x NA	Recharge Areas Protection
☐ Primary	☐ Secondary	x NA	Water-Dependent Recreation
☐ Primary	☐ Secondary	x NA	Watershed Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☐ Secondary	x NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	x NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	☐ Yes x No
If yes, please identify the program	_____

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	not initiated	_____ **(mm/dd/yyyy)**
Feasibility Study	not initiated	_____ **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	not initiated	_____ **(mm/dd/yyyy)**
CEQA/NEPA	not initiated	_____ **(mm/dd/yyyy)**
Permits	not initiated	_____ **(mm/dd/yyyy)**
Construction Drawings	not initiated	_____ **(mm/dd/yyyy)**
Funding	not initiated	_____ **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

The establishment of a new nonprofit organization to promote the development of a community water system for Hinkley is pending. Once established, this entity will work with the Mojave IRWM Group partners to seek resources to evaluate the concept of designing, then building a water system for the disadvantaged community of Hinkley. **Hinkley Partnership for healthy living**

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

No. Potential implementation funding mechanisms will be included as part of the project.

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

This project is needed to evaluate the concept of designing, then building a water system for the disadvantaged community of Hinkley. Drinking water contamination resulting from the operation of a nearby Pacific Gas and Electric Company (PG&E) compressor station has devastated the community – many residents opted to leave resulting in community impacts such as closure of its school. After many years of controversy, serious health issues and legal battles, remediation measures are underway, including replacement water provided by PG&E for many residents. A community water system with a water source not impacted by the contamination plume would allow residents to resume independent control over its own water supply plus help to rebuild a sense of community in Hinkley.

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?
x Yes ☐ **No** ☐ **Not Sure**

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?
x Yes ☐ **No** ☐ **Not Sure**

Does the project provide specific benefits to critical water issues for Native American tribal communities?
☐ **Yes** **x No** ☐ **Not Sure**
If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
x	Increases Water Supply Reliability – This project may result in a more reliable local water supply for the community of Hinkley.	
☐	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
☐	Provides Additional Water Supply	
☐	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☐	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State:	
☐	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☐	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☐	Other (Please State):
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☐	Improves Water System Energy Efficiency	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

An estimate of total capital cost for project implementation will be developed as part of the project.

Lower estimated total capital cost ($): NA LESTER: you may want to supply some initial cost estimates, but not required

Upper estimated total capital cost ($): NA

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($): NA

Annual Operation and Maintenance Cost ($): NA

Design Life of Project (years): NA

Economic Feasibility

Is the project cost-effective?		
☐ Yes	☐ No	x Not Sure
Does the project have a positive benefit-cost ratio?		
☐ Yes	☐ No	x Not Sure

Project No. 21

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

Mojave Desert Resource Conservation District (MDRCD) and Natural Resource Conservation Service(NRCS-USDA)

Agency / Organization / Individual Address:

15415 Sand St. St. 103 Victorville, CA 92392 (Both RCD and NRCS)

Possible Partnering Agencies:

Lahontan WQCB – Western United Dairymen

Name:*

Chuck Bell

Title:

Pres. - MDRCD

Telephone:* 760 964 3118

Fax:

Email:*

chuckb@sisp.net

Website:

Project Name:*

Dairy Nitrate Reduction

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: **Project Longitude:**

Location Description:	Various dairies within the Mojave River Basin – Helendale/Barstow region/etc.

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Stated above
-
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

On-going and new phase

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Implementable – in association with the IRWMP's Salt Mgt. Plan - with Lahontan concurrence

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

Piled manure from dairies and feed lots can – even with the area's limited precipitation – leach nitrates/salts/etc. to ground and surface waters. Groundwater underlying dairies in the Mojave River Basin is often shallow – sometimes just a few feet below the surface. Some dairies do not have sufficient acreage on or near their farms to apply their manure for field crops used to uptake nitrogen, etc. The cost of long-distance manure hauling – let alone just the cost of loading trucks – is often more than dairies can economically bear – especially with California's milk pricing system and regulations.

Nitrate-laden drainage from cow washing and corral flushing is normally held in ponds (some are unlined) – for future application to fields – percolating nitrates, etc. into groundwater.

All 8 dairies are currently under a Lahontan "order" to reduce nitrate leaching. The MDRCD and NRCS are working with Lahontan – with NRCS completing 5 "Comprehensive Nutrient Management Plans" (CNMPs) - designed to alleviate on-site nitrate concentrations.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

Obtain funding – to be matched with NRCS/USDA funding – a possible 25% contribution – to:

1) Help dairies pay to haul manure off-site – likely to fields distant from shallow groundwater and surface waters.
2) Help fund infrastructure designed to apply waste pond water directly to adjacent fields via irrigation systems, etc. – alleviating direct percolation to groundwater.

Requires manure "manifest" to track movement and use of nutrients. BMP to effectively use nutrients – applied at agronomic rates.

3) Feasibility study? to determine alternate uses of manure for fuels – ie: composting/digestion/gasification – what can be done on a regional basis – work in conjunction with VVWRA, etc.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Mojave River Basin surface and groundwater
-
-
-

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

• 5 CNMPs performed by NRCS
• Lahontan WQCB's orders and documents
• Numerous water quality tests

How do you rate the technical feasibility of the proposed project?

X High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	☐ Primary	☐ Secondary	X☐ NA	
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	☐ Primary	☐ Secondary	X☐ NA	
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	☐ Primary	X☐ Secondary	☐ NA	Some dairies are within DACs
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☐ Primary	X☐ Secondary	☐ NA	Reduce nitrate levels in groundwater
9. Improve stormwater management throughout the Plan area.	☐ Primary	X☐ Secondary	☐ NA	Storm flow runoff from corrals into ponds can be removed more quickly
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	☐ Secondary	X☐ NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	X☐ Primary	☐ Secondary	☐ NA	Improves water quality for downstream beneficial uses
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	X☐ Primary	☐ Secondary	☐ NA	To match NRCS/USDA funding that only covers @ 50% of a project – assuming it is attainable

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	X☐ Secondary	☐ NA	Pond to field irrigation infrastructure will have some benefit
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	X☐ Secondary	☐ NA	Waste pond water recycled to fields instead of percolating and evaporating
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	☐ Primary	☐ Secondary	X☐ NA	
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	☐ Primary	☐ Secondary	X☐ NA	
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	X☐ Secondary	☐ NA	Provides opportunities to educate students, etc. re: water quality and pollution prevention.
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	X☐ NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	X☐ Secondary	☐ NA	Agricultural Water Use Efficiency
☐ Primary	☐ Secondary	X☐ NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	X☐ NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	X☐ NA	System Reoperation
☐ Primary	☐ Secondary	X☐ NA	Water Transfers
☐ Primary	X☐ Secondary	☐ NA	Other (Please State):Operational efficiency of dairies
Increase Water Supply			
☐ Primary	☐ Secondary	X☐ NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	X☐ NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	X☐ NA	Precipitation Enhancement
☐ Primary	☐ Secondary	X☐ NA	Recycled Municipal Water
☐ Primary	☐ Secondary	X☐ NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	X☐ NA	Other (Please State): _____
Improve Water Quality			
☐Primary	X☐Secondary	☐ NA	Drinking Water Treatment and Distribution - improves downstream groundwater quality
X☐ Primary	☐ Secondary	☐ NA	Groundwater/Aquifer Remediation - quality remediation
☐ Primary	X☐ Secondary	☐ NA	Matching Quality to Use - above
X☐ Primary	☐ Secondary	☐ NA	Pollution Prevention
X☐ Primary	☐ Secondary	☐ NA	Salt and Salinity Management
☐ Primary	☐ Secondary	X☐ NA	Urban Runoff Management
☐ Primary	☐ Secondary	X☐ NA	Other (Please State) _____

Practice Resource Stewardship			
X☐ Primary	☐ Secondary	☐ NA	Agricultural Lands Stewardship
X☐ Primary	☐ Secondary	☐ NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	X☐ Secondary	☐ NA	Ecosystem Restoration
☐ Primary	☐ Secondary	X☐ NA	Forest Management
☐ Primary	☐ Secondary	X☐ NA	Land Use Planning and Management
☐ Primary	X☐ Secondary	☐ NA	Recharge Areas Protection
☐ Primary	☐ Secondary	X☐ NA	Water-Dependent Recreation
☐ Primary	X☐ Secondary	☐ NA	Watershed Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☐ Secondary	X☐ NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	☐ NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	X☐ Yes ☐ No
If yes, please identify the program: Stated above – on-going project involving Lahontan, et al	_____

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	_____	_____ **(mm/dd/yyyy)**
Feasibility Study	Use of manure for fuels (composting/digestors/gasification/etc).	Depends on funding **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	Via CNMPs – 5 completed	More anticipated? **(mm/dd/yyyy)**
CEQA/NEPA	Exempt	_____ **(mm/dd/yyyy)**
Permits	Likely just Lahontan	?? **(mm/dd/yyyy)**
Construction Drawings	Via CNMPs	_____ **(mm/dd/yyyy)**
Funding	Potential NRCS/USDA	?? **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

Manure hauling just requires trucks and drivers – likely available.

Construction of "pond to field" improvement systems would be on-going – not considered "major" construction projects.

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

Prop 84 – some match to NRCS/USDA funding (EQIP, etc.)

Possible funding via the Salt Mgt. Plan?

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

Intent is to meet Lahontan's water quality objectives – state/federal levels – etc. - for nitrates, salts, etc.

Alleviate any nitrate levels in groundwater from dairies.

Reduce/eliminate need for dairies to fund/provide drinking water for downstream pumpers per Lahontan's order.

Benefit to the substance of IRWMP's Salt Mgt. Plan

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?

☐ **Yes** ☐ **No** X☐ **Not Sure**

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?

X☐ **Yes** ☐ **No** ☐ **Not Sure**

Does the project provide specific benefits to critical water issues for Native American tribal communities?

☐ **Yes** X☐ **No** ☐ **Not Sure**

If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
☐	Increases Water Supply Reliability	
☐	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
☐	Provides Additional Water Supply	
X☐	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☐	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State:	
☐	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☐	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☐	Other (Please State):
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☐	Improves Water System Energy Efficiency	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($): Wastewater application infrastructure: @250K/dairy. Digesters/gasification/etc: @1M – Might serve a number of dairies, depending on distance.

Upper estimated total capital cost ($): Wastewater application infrastructure: @500K/dairy_____

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($): NA_____

Annual Operation and Maintenance Cost ($): Manure hauling and tipping fees – @$30/ton.

Total hauling cost depends on how many dairies participate – travel distance – etc.

Design Life of Project (years): ??

Economic Feasibility

Is the project cost-effective?		
☐ Yes	☐ No	X☐ Not Sure
Does the project have a positive benefit-cost ratio?		
☐ Yes	☐ No	X☐ Not Sure

Project No. 22

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Deep Creek Off-River Recharge And Storage Basins		
Project Sponsor:	Mojave Water Agency		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Darrell Reynolds and Tony Winkel	760-946-7023	760-240-2001	dreynolds@mojavewater.org

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Conceptual Design

Project Description (1 -2 sentences):

Off River recharge and storage basins on the Deep Creek Properties

Project Integration (Describe how the project does or could integrate with other projects in the Region):

The R3 Project pumps from recharge in the Mojave River. The MWA recharges water into the Mojave River along Deep Creek Road south of Rock Springs Road. In conjunction with recharge in the river, off river basins could be constructed that can be filled from the Morongo basin pipeline.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Project Location

Descriptive (Description of property location etc.):

7620 Deep Creek Rd, Apple Valley Ca

Latitude/Longitude - info available at:	http://geocoder.us/	Lat: 34dgs 23' 13.20	Long: 117dgs 14' 22.4

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:					

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☑	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 27

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

Town of Apple Valley, Engineering Department, Brad Miller PE, Town Engineer

Agency / Organization / Individual Address:

Town of Apple Valley, 14955 Dale Evans Parkway, Apple Valley, CA 92307

Possible Partnering Agencies:

Mojave Water Agency, San Bernardino County Flood Control District, Zone 4

Name:*

Brad Miller, PE

Title:

Town Engineer

Telephone:* (760) 240-7000

Fax: (760) 240-7399

Email:*

bmiller@applevalley.org

Website:

Project Name:*

Dry Well Installation Program, Town wide, Town of Apple Valley

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: **Project Longitude:**

Location Description:	The Town of Apple Valley proposes to construct a series of dry well structures along natural flood water pathways, town wide, in the areas hardest hit by surface runoff flooding. These dry wells will make use of natural low-lying areas that serve as basins, and will provide a significant step toward alleviating future flooding. The Project will utilize these natural low lying areas as opportunities to capture storm water runoff, reduce flooding, and promote and maximize groundwater recharge. All of the proposed dry wells will be publicly owned and perpetually maintained by the Town of Apple Valley. All structures will be built within existing Town rights-of-way; no property acquisition is required.

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Mojave Water Agency, Scott Weldy
- San Bernardino County Flood Control, Kevin Blakeslee
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

New Phase of ongoing Dry Well Installation Program

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Implementation of Program, New Phase of ongoing Program

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

Describe the Project Need:

The Town of Apple Valley experiences two types of storm damage. The first is erosion along natural well defined, and relatively steep, flow paths that convey concentrated flows of storm water runoff. This type of flood condition involves quickly moving storm flows, and is present over about one third of the Town's area, primarily areas with good drainage that are tributary to the Mojave River.

The second type of storm damage is the most common, and it involves standing or slowly moving flood water. This condition occurs in extremely flat or very gently sloped areas throughout the remaining two

thirds of Apple Valley. This condition is particularly common in areas surrounding the Apple Valley Dry Lake, which is a natural basin with no outfall. These relatively flat land areas extend for miles radiating out from the Apple Valley Dry Lake Basin. In the vast tributary area that surrounds the Apple Valley Dry Lake, water ponds in local low spots, filling and over-topping one, only to sheet flow on to the next one, working it's way to the lowest point in the Apple Valley Dry Lake Basin. Water ponds in street right-of-way, adjacent yards, and on private property, impeding travel, damaging public infrastructure, and even threatening homes.

Flood damage caused by standing or slowly moving storm water runoff occurs in virtually every area of Town tributary to the Dry Lake, and is the result of several unique High Desert features. Typically, desert rainfall events consist of heavy cloudbursts of rain activity, with relatively short storm duration, but with high intensity, and impacts that are confined to a relatively small area. These events cause the occasional desert "Flash Flood" condition that has, over time, shaped the natural topography of the California High Desert. These severe rain events combine with the mineral makeup of the soil in our region to create a unique desert flooding scenario. The mineral makeup of the High Desert soil is commonly called "Caliché Soil", and is a natural form of cement. Most of the ingredients used for modern concrete/cement are mined from hillside quarries here in the High Desert. The natural alluvial materials that make up the greater Apple Valley Dry Lake basin are rich in this Caliché Soil, and it forms a crust liner of dense and impervious material on the surface of the Basin. This crust prevents storm water runoff from infiltrating quickly in many areas, and results in standing water that may remain for weeks or months after a rainfall event. Standing water is trapped in natural low spots and cannot percolate into the ground. It remains until it has evaporated. Storm water flows that actually reach the Apple Valley Dry Lake are almost completely lost to evaporation as the surface crust of impervious soil may extend to a depth of over 75 feet in the lowest portions of the basin. For most areas of Apple Valley the impervious surface soils extend only to a depth of about 35-40 feet, and the underlying sand and gravel material has excellent percolation potential.

The multiple rain events of 2010-2011 distributed intense, long duration rainfall episodes uniformly over the entire region. These storms resulted in flooding through hundreds of Apple Valley homes, (see photos attached). Parks and public roads were inundated. Sewer pipes located in the Mojave River carrying effluent to the regional water treatment facility were damaged resulting in massive sewage spills into the river. Damage to public infrastructure resulted in claims to FEMA for more than $700,000 from one storm alone. This unusual rainfall event provided unique insights into the local floodwater pathway alignments, and the depth of flooding that is possible to occur in some low-lying areas. With this knowledge comes opportunity. In respect to flood damage, dry wells are currently the most effective and economical means for improving public safety, protecting public infrastructure, and protecting improved private property, as well as capturing and infiltrating storm runoff for the purpose of groundwater recharge. The proposed project will capture and infiltrate flood waters by perforating the surface layers of impervious soil, and allow natural gravity flow infiltration to percolate storm water into the underground aquifer.
The project will enhance storm water infiltration while at the same time, mitigate existing flood hazards.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

If awarded funding, the project would move directly forward with preparation of bid packages to advertise and award a contract for the next phase of program implementation. The contract will construct as many dry well structures as funding will allow.

To date approximately 77 shallow dry well structures have been constructed in Apple Valley and are successfully alleviating flooding where they exist. The underlying layers of natural gravel and sand absorb water almost as fast as it can be filtered and introduced into the wells. The Town of Apple Valley Dry Well Standard Design calls for a pre-manufactured dry well structure, and is a combination of an inlet treatment/filtration chamber, (similar to many being used in coastal areas for NPDES related storm water runoff treatment prior to discharge into a water body), combined with a second chamber connected to a shallow lined and perforated well or pit that extends down through the surface layer of impervious soils. The structures average between 35 and 40 feet deep, but are only as deep as required to reach sandy gravelly soil.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- The Apple Valley Dry Lake
- All underground basins recharged from areas tributary to the Apple Valley Dry Lake.
-
-

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

- Apple Valley Town Council Agenda Report on Town-wide flooding, 2010-2011.
- Apple Valley Award of Contract for recent Drywell construction project.
- Apple Valley Standard Dry Well Design and Specifications

How do you rate the technical feasibility of the proposed project?

☒ High	The technical feasibility is well-documented and is based on similar successful

	projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	☒ Primary	☐ Secondary	☐ NA	Project will enhance groundwater recharge through storm water capture and infiltration, improving sustainability.
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	☒ Primary	☐ Secondary	☐ NA	Project will improve stability of the Apple Valley Underground Aquifer by enhancing storm water capture and infiltration.
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	☐ Primary	☐ Secondary	☒ NA	
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☐ Primary	☐ Secondary	☒ NA	
9. Improve stormwater management throughout the Plan area.	☒ Primary	☐ Secondary	☐ NA	Project will reduce flooding while improving storm water capture and infiltration.
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	☒ Secondary	☐ NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	☒ Primary	☐ Secondary	☐ NA	
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	☒ Primary	☐ Secondary	☐ NA	

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	☐ Secondary	☒ NA	
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	☐ Secondary	☒ NA	
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	☒ Primary	☐ Secondary	☐ NA	
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	☒ Primary	☐ Secondary	☐ NA	
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	☒ Secondary	☐ NA	
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	☒ NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	☐ Secondary	☒ NA	Agricultural Water Use Efficiency
☐ Primary	☐ Secondary	☒ NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	☒ NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	☒ NA	System Reoperation
☐ Primary	☐ Secondary	☒ NA	Water Transfers
☐ Primary	☐ Secondary	☒ NA	Other (Please State):_____
Increase Water Supply			
☐ Primary	☒ Secondary	☐ NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	☒ NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	☒ NA	Precipitation Enhancement
☐ Primary	☐ Secondary	☒ NA	Recycled Municipal Water
☐ Primary	☐ Secondary	☒ NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Water Quality			
☐Primary	☐Secondary	☒ NA	Drinking Water Treatment and Distribution
☒ Primary	☐ Secondary	☐ NA	Groundwater/Aquifer Remediation
☐ Primary	☐ Secondary	☒ NA	Matching Quality to Use
☐ Primary	☒ Secondary	☐ NA	Pollution Prevention
☐ Primary	☐ Secondary	☒ NA	Salt and Salinity Management
☐ Primary	☒ Secondary	☐ NA	Urban Runoff Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	☒ NA	Agricultural Lands Stewardship
☐ Primary	☐ Secondary	☒ NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	☐ Secondary	☒ NA	Ecosystem Restoration
☐ Primary	☐ Secondary	☒ NA	Forest Management
☐ Primary	☐ Secondary	☒ NA	Land Use Planning and Management
☐ Primary	☒ Secondary	☐ NA	Recharge Areas Protection
☐ Primary	☐ Secondary	☒ NA	Water-Dependent Recreation
☒ Primary	☐ Secondary	☐ NA	Watershed Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Flood Risk Management			
☒ Primary	☐ Secondary	☐ NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	☐ NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	☒ Yes ☐ No
If yes, please identify the program	This will be a new Phase of an existing Town wide program to install dry wells in flood prone areas.

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	Completed	_____ **(mm/dd/yyyy)**
Feasibility Study	Completed	_____ **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	Completed	_____ **(mm/dd/yyyy)**
CEQA/NEPA	Completed	_____ **(mm/dd/yyyy)**
Permits	_____	_____ **(mm/dd/yyyy)**
Construction Drawings	Completed	_____ **(mm/dd/yyyy)**
Funding	Initiated	_____ **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

Funding for this ongoing program has historically come from Town Developer Impact Fees, (Drainage Impact Fee component). This application is to request additional grant funding to supplement the current Town funding and expand the program.

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

The proposed Dry Well Installation Program has multiple goals and benefits.

Local flooding episodes will be less severe and of shorter duration as the dry wells can quickly de-water low-lying areas of trapped water. Damage to Public Infrastructure, including street improvements, sewer improvements, and water and public utility systems will be reduced. Public improvements of every type will be better protected from damage by reducing or eliminating extended periods of submersion. In addition, hundreds of private homes and improved properties will benefit from a greatly reduced incidence of local flooding. The proposed Dry Well Project will also protect groundwater quality by taking surface flows off of local streets more quickly, reducing contact time in urban areas so that storm water runoff picks up less petroleum-based contaminants. The Dry Well Program structures are designed to treat storm water prior to infiltration by subjecting storm flows to multiple filtration features. Each dry well structure separates solids, floating debris, and oil and grease from storm water prior to entering the percolation well.

In addition to the flood hazard mitigation, the proposed project allows trapped storm water to penetrate the natural layer of impervious surface soil covering the greater Apple Valley Dry Lake Basin, and enhance more efficient infiltration of storm water into the underlying layers of gravel and sand. Properly placed dry wells will maximize surface water recharge of the underground aquifer by allowing storm water to more easily reach the upper-most sand and gravel layers of surface soils where it may then percolate naturally by gravity into the underground aquifer. The Dry Well Project will greatly reduce and minimize historic surface water losses due to evaporation.

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?

☒ **Yes** ☐ **No** ☐ **Not Sure**

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?

☒ **Yes** ☐ **No** ☐ **Not Sure**

Does the project provide specific benefits to critical water issues for Native American tribal communities?

☐ **Yes** ☐ **No** ☒ **Not Sure**

If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
☒	Increases Water Supply Reliability	
☒	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
☒	Provides Additional Water Supply	
☒	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☒	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☒	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State: Program enhances use of alternate water source, will help reduce impacts of climate change on traditional water resources.	
☒	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☒	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☒	Other (Please State):Program reduces historic losses of water from the local habitat as the result of evaporation. Program will enhance capture and preservation of water resources in the local aquifer.
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☒	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☒	Improves Water System Energy Efficiency	
☒	Advances/Expands Water Recycling	
☒	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($): 1 million

Upper estimated total capital cost ($): 1 million

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($): 0

Annual Operation and Maintenance Cost ($): $200 per unit

Design Life of Project (years): 50

Economic Feasibility

Is the project cost-effective?		
☒ Yes	☐ No	☐ Not Sure
Does the project have a positive benefit-cost ratio?		
☒ Yes	☐ No	☐ Not Sure

Project No. 29

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:	Forks Dam Storm Water Detention				
Project Sponsor:	Tony Winkel (MWA)				
If Joint Project, Other Partners:					
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Tony Winkel	760-946-7000	760-240-2642	twinkel@mojavewater.org		
Project Description					
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)					
Conceptual					
Project Description (1 -2 sentences):					
Although extremely variable on average 41,000 acre feet of storm water flow out of Afton Canyon every 6 years. Based on current State					
Project Integration (Describe how the project does or could integrate with other projects in the Region):					
This project would integrate with area recharge projects and the State of California would support the project. The Recycled Water Policy					
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):					
Project Location					
Descriptive (Description of property location etc.):					
Forks Dam and Mojave River Corridor					
Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☑	>$10M ☑
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Unknown - would depend on permits				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*				
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*	restoration of riparian habitat from dewatered areas			
Stormwater: *Reduction in Flood Damage (Y/N):*	Yes	Multi-benefit Y/N:	Yes	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

• Locally sourced "free" water
• Revenue source for MWA
• Conservation of lost storm water

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☑	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☑	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☑	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☑	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☑	Practice Integrated Flood Management
☑	Protect Surface and Groundwater Quality
☑	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☑	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☑	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☑	Conjunctive Management and Groundwater Storage	☑	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☑	Economic Incentives	☐	Surface Storage - Regional/Local
☑	Ecosystem Restoration	☐	System Reoperation
☑	Flood Risk Management	☑	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 31

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)				
Project Name:	Helendale CSD - WWTP Effluent Distribution System			
Project Sponsor:	Helendale CSD			
If Joint Project, Other Partners:	Silver Lakes Association HOA and Golf Course			
Project Website (if available):				
Project Contact Person:	Phone	FAX	Email	
Michael Bennett - GM	760-245-1606		mbennett@silverlakesassociation.com	

Project Description				
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)				
Conceptual				
Project Description (1 -2 sentences):				
Design and construction of "Purple Pipe" pipeline system to convey effluent water to nearby Golf Course Irrigation system that currently uses pumped groundwater.				
Project Integration (Describe how the project does or could integrate with other projects in the Region):				
This project would integrate with future expansion and Tertiary treatment upgrades at the Helendale CSD Wastewater Treatment Plant on Helendale Road.				
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):				
Project Location				
Descriptive (Description of property location etc.):				
Pipeline from Helendale Road WWTP south to Golf Irrigation Pump house on Silver Lakes Parkway using existing pipeline and right of way, then west across Golf Course.				
Latitude/Longitude - info available at: http://geocoder.us/	Lat: 34,45', 13.94" N		Long: 117, 20' 30.90" W	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):				
Estimated Cost:	<$100K ☐	$100K - $1M ☒	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):	Conceptual ☒	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:				

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☒ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☒	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☒	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☒	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☒	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☒	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☒	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☒	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☒	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☒	Use and Reuse Water More Efficiently
☒	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☒	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☒	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☒	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☒	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☒	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 32

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

HELENDALE COMMUNITY SERVICES DISTRICT

Agency / Organization / Individual Address:

26540 Vista Road, Suite B, PO Box 359, Helendale, CA 92342

Possible Partnering Agencies:

Silver Lakes Association

Name:*

Paul E. Harmon

Title:

Assistant General Manager

Telephone:* 760-951-0006

Fax: 760-951-0046

Email:*

pharmon@helendalecsd.org

Website:

www.helendalecsd.org

Project Name:*

Helendale CSD Tertiary Treatment Upgrade

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: 34° 46' 31.51" N **Project Longitude:** 117° 19' 42.72" W

Location Description:	Helendale CSD Waste Water Treatment Plant 27079 Helendale Road Helendale, CA 92342

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Silver Lakes Association
-
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

New

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Implementable Project

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The Wastewater Treatment Plant (WWTP) produces approximately .6mgd daily average, with flows into to percolating/holding ponds. The secondary effluent is partially used by an alfalfa farmer for his livestock operation. The effluent has been salt loading under the WWTP for many years which has been affecting the groundwater. The District pumps approximately 1,750AF annually with an FPA of 1,695AF. The proposed tertiary upgrade would provide an estimated 350AF annually that could be used for park irrigation instead of using groundwater, thereby reducing our pumping demand, and, if partnered with the Silver Lakes Association (SLA), the project would be able to provide additional water supply for irrigation of their golf course that would reduce the pumping of groundwater by SLA. The SLA has FPA of 2,993AF and pumps approximately 3,326 AF.
This project also melds with the Salt and Salinity Management Plan for the basin by reducing the nitrates associated with secondary effluent.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The District has completed a Recycled Water Facilities Plan which has identified a preferred treatment alternative and cost scenario estimated at $2,670,000 for plant upgrades. The project is designed to produce recycled tertiary water for use within the District service area by improving the WWTP processes to provide unrestricted Title 22 recycled water. The delivery phase is two-stage with minor delivery required to move Title 22 water across the street to Helendale Community Park for landscape irrigation, and the second stage for delivery of Title 22 water to the Silver Lakes Association for golf course irrigation which would require an extensive pump station and force main. The next phase is recycled water storage required to store water during the wet months for use in the dry months and for use by the onsite farming operation. However, this stage of tertiary treatment can be reduced by the implementation of full phase 2 providing recycled water to the SLA golf course.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

• Alto Transition Zone
• Mojave River
•
•

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

• Recycled water Facilities Plan
• Antidegradation Analysis Study
• Farm Management Plan

How do you rate the technical feasibility of the proposed project?

X High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	X Primary	☐ Secondary	☐ NA	
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	X Primary	☐ Secondary	☐ NA	
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	☐ Primary	☐ Secondary	X NA	
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☐ Primary	☐ Secondary	X NA	
9. Improve stormwater management throughout the Plan area.	☐ Primary	☐ Secondary	X NA	
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	X Secondary	☐ NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	X Primary	☐ Secondary	☐ NA	
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	X Primary	☐ Secondary	☐ NA	

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	X Secondary	☐ NA	
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	X Primary	☐ Secondary	☐ NA	
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	X Primary	☐ Secondary	☐ NA	
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	X Primary	☐ Secondary	☐ NA	
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	X Secondary	☐ NA	
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	X NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	**X** Secondary	☐ NA	Agricultural Water Use Efficiency
X Primary	☐ Secondary	☐ NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	**X** NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	**X** NA	System Reoperation
☐ Primary	☐ Secondary	**X** NA	Water Transfers
☐ Primary	☐ Secondary	**X** NA	Other (Please State):_____
Increase Water Supply			
☐ Primary	☐ Secondary	**X** NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	**X** NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	**X** NA	Precipitation Enhancement
X Primary	☐ Secondary	☐ NA	Recycled Municipal Water
☐ Primary	☐ Secondary	**X** NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	**X** NA	Other (Please State): _____
Improve Water Quality			
☐Primary	☐Secondary	**X** NA	Drinking Water Treatment and Distribution
☐ Primary	☐ Secondary	**X** NA	Groundwater/Aquifer Remediation
☐ Primary	☐ Secondary	**X** NA	Matching Quality to Use
☐ Primary	☐ Secondary	**X** NA	Pollution Prevention
X Primary	☐ Secondary	☐ NA	Salt and Salinity Management
☐ Primary	☐ Secondary	**X** NA	Urban Runoff Management
☐ Primary	☐ Secondary	**X** NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	**X** NA	Agricultural Lands Stewardship
☐ Primary	☐ Secondary	**X** NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	☐ Secondary	**X** NA	Ecosystem Restoration
☐ Primary	☐ Secondary	**X** NA	Forest Management
☐ Primary	☐ Secondary	**X** NA	Land Use Planning and Management
☐ Primary	☐ Secondary	**X** NA	Recharge Areas Protection
X Primary	☐ Secondary	☐ NA	Water-Dependent Recreation
☐ Primary	☐ Secondary	**X** NA	Watershed Management
☐ Primary	☐ Secondary	**X** NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☐ Secondary	**X** NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	**X** NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	☐ Yes **X** No
If yes, please identify the program	_____

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	COMPLETE	01/17/2012 **(mm/dd/yyyy)**
Feasibility Study	COMPLETE	01/17/2012 **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	IN PROCESS	_____ **(mm/dd/yyyy)**
CEQA/NEPA	NOT INITIATED	_____ **(mm/dd/yyyy)**
Permits	NOT INITIATED	_____ **(mm/dd/yyyy)**
Construction Drawings	NOT INITIATED	_____ **(mm/dd/yyyy)**
Funding	NOT INITIATED	_____ **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

Clean Water State Revolving Fund – SWRCB construction loan **Water Recycling Funding Program – SWRCB recycled water facilities loan** **State Revolving Fund (SRF) – I-Bank infrastructure Loan**

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

The tertiary facilities project will produce an estimated 350 AF annually that will provide water for many District and local area uses. Principle among the uses is parkland irrigation. The District owns a 75-acre park property of which approximately 30 acres are being improved to provide ball fields, playground areas, pathway trees and other landscaping. The Wastewater Treatment Plant (WWTP) also maintains an agricultural project that produces alfalfa and other livestock feed. In addition, a partner for tertiary water usage is the Silver Lakes Association, the local homeowners association, which owns and operates a large golf course that uses 3,326AF annually.

The tertiary facilities project positively impacts the Salt and Salinity Management Plan by reducing the salt loading near the WWTP and within the District boundary.

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?

☐ **Yes** **X No** ☐ **Not Sure**

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?

☐ **Yes** **X No** ☐ **Not Sure**

Does the project provide specific benefits to critical water issues for Native American tribal communities?

☐ **Yes** **X No** ☐ **Not Sure**

If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
X	Increases Water Supply Reliability	
☐	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
X	Provides Additional Water Supply	
X	Promotes Water Quality Protection	
X	Reduces Water Demand	
X	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☐	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State:	
☐	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☐	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☐	Other (Please State):
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☐	Improves Water System Energy Efficiency	
X	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($): _____

Upper estimated total capital cost **($): 3,523,500** _____

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($):

_____

Annual Operation and Maintenance Cost **($):$750,000 – Total WWTP Operation Including Tertiary** _____

Design Life of Project (years): **25 YEARS**

Economic Feasibility

Is the project cost-effective?		
X Yes	☐ No	☐ Not Sure
Does the project have a positive benefit-cost ratio?		
X Yes	☐ No	☐ Not Sure

Project No. 34

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Hydroelectric Facility at Deep Creek to generate power for R3 ground water wells		
Project Sponsor:	Maojave Water Agency		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Darrell Reynolds	760-946-7023	760-240-2001	dreynolds@mojavewater.org

Project Description
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)
Conceptual
Project Description (1 -2 sentences):
The Deep Creek Outlet to the Mojave River can generate electrical power for use by the Agency to power the R3 groundwater wells. Two
Project Integration (Describe how the project does or could integrate with other projects in the Region):
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Project Location						
Descriptive (Description of property location etc.):						
7620 Deep Creek Road, Apple Valley, CA						
Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:		
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):						
Estimated Cost:		<$100K	$100K - $1M	$1M - $10M	>$10M	
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐	N/A ☐
Estimated Year of Completion:		☑	☐	☐	☐	☐

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	1-100 AF	100-1000AF	1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*	☐	☐	☐
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*	use electrical		
Other: *(Describe X amount of benefit)*			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 35

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name: Indian Cove Stormwater Capture and Recharge Project			
Project Sponsor: Twentynine Palms Water District/Joshua Basin Water District			
If Joint Project, Other Partners: See Above			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Tamara Alaniz	760-367-7546		talaniz@29palmswater.org

Project Description
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)
Conceptual - Stormwater Capture and Recharge
Project Description (1 -2 sentences):
The Department of Water Resources has identified the safe yield for the Indian Cove groundwater basin, limiting production to 1,500 acre-feet per year to avoid overdraft. This project could mitigate past over-drafting and prevent future declines in water levels within this shared basin.
Project Integration (Describe how the project does or could integrate with other projects in the Region):
This ides stems from a joint discussion between the Twentynine Palms and Joshua Basin Water Districts, in order to recharge the Indian Cove groundwater basin through stormwater capture.
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):
Not presently included in adopted plans, but the concept is identified in the 2010 29PWD UWMP

Project Location				
Descriptive (Description of property location etc.):				
Indian Cove Groundwater Basin, western portion of Twentynine Palms Water District service area and eastern portion of Joshua Basin Water District service area.				
Latitude/Longitude - info available at: http://geocoder.us/	Lat:		Long:	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):				
Estimated Cost:	<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):	Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion: 2016-2017				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

Limited flood control benefits

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☑	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities

- [x] Drought Preparedness
- [x] Use and Reuse Water More Efficiently
- [ ] Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
- [ ] Expand Environmental Stewardship
- [x] Practice Integrated Flood Management
- [x] Protect Surface and Groundwater Quality
- [ ] Improve Tribal Water and Natural Resources
- [x] Ensure Equitable Distribution of Benefits

Program Preferences

- [ ] Include Regional Projects or Programs
- [x] Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
- [ ] Effectively Resolve Significant Water-Related Conflicts within or between Regions
- [ ] Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
- [x] Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
- [x] Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies

- [ ] Agricultural Lands Stewardship
- [ ] Agricultural Water Use Efficiency
- [ ] Conjunctive Management and Groundwater Storage
- [ ] Conveyance - Delta, Regional/Local
- [ ] Desalination - Brackish & Seawater
- [ ] Drinking Water Treatment and Distribution
- [ ] Economic Incentives
- [ ] Ecosystem Restoration
- [x] Flood Risk Management
- [ ] Forest Management
- [x] Groundwater/Aquifer Remediation
- [x] Land Use Planning & Management
- [ ] Matching Water Quality to Water Use
- [x] Pollution Prevention
- [ ] Precipitation Enhancement
- [x] Recharge Areas Protection
- [ ] Recycled Municipal Water
- [ ] Salt & Salinity Management
- [ ] Surface Storage - CALFED
- [ ] Surface Storage - Regional/Local
- [ ] System Reoperation
- [x] Urban Runoff Management
- [ ] Urban Water Use Efficiency
- [ ] Water Transfers
- [ ] Water-Dependent Recreation
- [x] Watershed Management

Project No. 36R

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **September 12, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Infrastructure Improvements Projects		
Project Sponsor:	Joshua Basin Water District		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Susan Greer, AGM	760-366-8438x225	760-366-9528	Sgreer@jbwd.com

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Planning, design and construction of facility improvements

Project Description (1 -2 sentences):

Design and Construction of infrastructure replacements to improve efficiency and increase conservation of resources. Particular emphasis on water booster station improvement to reduce energy impacts (i.e. reduce in-rush impacts on pump start-up and increased efficiency of equipment.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Upgrades to outdated infrastructure allow increased cooperation with local agencies for emergency water supply, reduction in energy based greenhouse gas production, reduced regional energy distribution system impacts.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Groundwater Basin Management Plan, Joshua Basin Water District Water Master Plan.

Project Location

Descriptive (Description of property location etc.):

Various locations throughout Joshua Tree, California

	http://geocoder.us/	Lat: VAR.	Long: VAR.

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☑	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Planning & implementation complete in 2016 if funding available 2014				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*	No			
Stormwater: *Reduction in Flood Damage (Y/N):*	No	Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*	No			
Climate Change: *Helps assess potential impacts (Y/N):*	Yes			
Environmental Stewardship/Public Awareness *Direct Benefits:*	Yes - Reduction in Energy Consumption			
Other: *(Describe X amount of benefit)*				
Improves water quality and supply while reducing energy consumption required to provide water.				

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met		
Prim.	**Second.**	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.

☐	☑	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities
☐ Drought Preparedness
☑ Use and Reuse Water More Efficiently
☑ Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☑ Expand Environmental Stewardship
☐ Practice Integrated Flood Management
☐ Protect Surface and Groundwater Quality
☐ Improve Tribal Water and Natural Resources
☐ Ensure Equitable Distribution of Benefits

Program Preferences
☐ Include Regional Projects or Programs
☑ Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐ Effectively Resolve Significant Water-Related Conflicts within or between Regions
☑ Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑ Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐ Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies	
☐ Agricultural Lands Stewardship	☐ Pollution Prevention
☐ Agricultural Water Use Efficiency	☐ Precipitation Enhancement
☑ Conjunctive Management and Groundwater Storage	☐ Recharge Areas Protection
☑ Conveyance - Delta, Regional/Local	☐ Recycled Municipal Water
☐ Desalination - Brackish & Seawater	☐ Salt & Salinity Management
☐ Drinking Water Treatment and Distribution	☐ Surface Storage - CALFED
☐ Economic Incentives	☐ Surface Storage - Regional/Local
☐ Ecosystem Restoration	☑ System Reoperation
☐ Flood Risk Management	☐ Urban Runoff Management
☐ Forest Management	☑ Urban Water Use Efficiency
☐ Groundwater/Aquifer Remediation	☐ Water Transfers
☐ Land Use Planning & Management	☐ Water-Dependent Recreation
☐ Matching Water Quality to Water Use	☑ Watershed Management

Project No. 38R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **September 12, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	JBWD Central Wastewater Treatment Plant Project		
Project Sponsor:	Joshua Basin Water District		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Susan Greer, AGM	760-366-8438x225	760-366-9528	Sgreer@jbwd.com

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Design, Environmental and Construction of Central WWTP, continuation of JBWD Wastewater Treatment Strategy

Project Description (1 -2 sentences):

Design and construction of required central WWTP to include plant siting, WWTP design,trunk sewer alignment and design, environmental compliance, permitting and construction. Central WWTP provides long-term control of nitrate contamination in groundwater basin, as well as other contaminants identified in past studies.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Central WWTP could be integrated into regional sewer strategy. Central WWTP protects local groundwater basins that provide regional water supply to JBWD and potentially to other local agencies through system intertie facilities.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Groundwater Basin Management Plan, Wastewater Treatment Strategy

Project Location

Descriptive (Description of property location etc.):

WWTP siting and design is a project task. The conceptual project location is east of LaFerney Avenue and Terrace Drive. The trunk sewer would parallel SR62 from approximately Yucca Mesa Drive to the plant site.

	http://geocoder.us/	Lat:	34°08'32"N	Long:	116°16'25"W

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☑
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Design, environmental & construction complete in 2016, if funding available 2014				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☑ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*	No			
Climate Change: *Helps assess potential impacts (Y/N):*	No			
Environmental Stewardship/Public Awareness *Direct Benefits:*	Yes - Groundwater Protection, Health			
Other: *(Describe X amount of benefit)*				
Controls nitrate contamination of groundwater basin, provides public health benefits, consistent with overall basin plan and wastewater treatment strategy of region.				

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met		
Prim.	**Second.**	
☐	☑	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☑	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☑	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.

☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☑	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☑	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☑	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☑	Conveyance - Delta, Regional/Local	☑	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☑	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☑	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☑	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 40R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **September 12, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	JBWD Graywater & Rainwater Harvesting Project		
Project Sponsor:	Joshua Basin Water District		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Susan Greer, AGM	760-366-8438x225	760-366-9528	Sgreer@jbwd.com

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Planning, Design, Education & Implementation of Graywater & Rainwater Harvesting Facilities

Project Description (1 -2 sentences):

Development of design standards and funding of on-site collection facilities for capture of graywater and rainwater by individual property owners located in the JBWD service area. Water collected would be used for gardening and other non-potable uses, reducing dependence on groundwater. Public education is an important component of the project and will include printed materials and demonstration models of collection facilities. Project compliments the District's new imported water recharge project and educates property owners about how graywater and rainwater collection can contribute to increasing local water supplies and conserving groundwater.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Groundwater Basin Management Plan, Regional Water Quality Control Board Planning Documents

Project Location

Descriptive (Description of property location etc.):

Facilities would be located on private properties, with demonstration project adjacent to the District's recharge facility and/or offices to promote educational aspect of the program.

Latitude/Longitude - info available at: http://geocoder.us/	Lat:		Long:	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):				
Estimated Cost:		<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Complete in 2016, if funding available 2014				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*	Yes	Multi-benefit Y/N:	No	
Multi-stakeholder project/regional collaboration *Y/N:*	No			
Climate Change: *Helps assess potential impacts (Y/N):*	No			
Environmental Stewardship/Public Awareness *Direct Benefits:*	Yes, conservation			
Other: *(Describe X amount of benefit)*				
Collection and use of rainwater and graywater will result in reduction of groundwater overdraft, a new water supply and reduction to demand.				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☑	9. Improve stormwater management throughout the Plan area.
☐	☑	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.

☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☑	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☑	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☑	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☑	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☑	System Reoperation
☑	Flood Risk Management	☑	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☑	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 41R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **September 12, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	JBWD Stormwater Recovery Project		
Project Sponsor:	Joshua Basin Water District		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Susan Greer, AGM	760-366-8438x225	760-366-9528	Sgreer@jbwd.com

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Design, Environmental and Construction of Stormwater Recovery Facilities.

Project Description (1 -2 sentences):

Capture and retain stormwater from local arroyos into the new recharge basin to enhance percolation potential into the groundwater basin. Includes studies to determine quantities of stormwater that could be recharged, engineering feasibility for retention and percolation and environmental review. Project would increase groundwater basin recharge and minimize downstream impacts.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Groundwater Basin Management Plan, Regional Water Quality Control Board Planning Documents

Project Location

Descriptive (Description of property location etc.):

Stormwater facilities would be located adjacent to the District's recharge facility at the terminus of Verbena Street, adjacent to a local channelized arroyo.

	http://geocoder.us/	Lat:	34°08'20"N	Long:	116°18'00"W

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☑	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Design, environmental & construction complete in 2016, if funding available 2014				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☑ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☑ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*	Yes	Multi-benefit Y/N:	No	
Multi-stakeholder project/regional collaboration *Y/N:*	No			
Climate Change: *Helps assess potential impacts (Y/N):*	No			
Environmental Stewardship/Public Awareness *Direct Benefits:*	Yes - basin replenishment & flood control			
Other: *(Describe X amount of benefit)*				
Increased groundwater recharge, flood damage prevention, groundwater quality enhancements, increased water supply, reduced ground subsidence, decreased import water dependency				

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met		
Prim.	**Second.**	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☑	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.

☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☑	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☑	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☑	Conjunctive Management and Groundwater Storage	☑	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☑	Flood Risk Management	☑	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 42R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Johnson Valley Pressurized Water System		
Project Sponsor:	Bighorn-Desert View Water Agency		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Marina West	760-364-2315	760-364-3214	bdvwa2@mindspring.com

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Conceptual (Agency has conducted a survey of propery owners which indicates a strong interest in constructing a pressurized water system. The Agency has completed preliminary work evaluating various system layouts [pipeline alignments and reservoir capacity requirements] and has prepared cost estimates)

Project Description (1 -2 sentences):

Approximately 1/3rd of the Agency's service area is without a pressurized water supply. Residents in these areas rely on hauled water (self-haul or commercial delivery). Property owners are now prohibited from building or improving their property using hauled water as the water supply. Project would bring a pressurized water distribution system to the area to improve quality of life, public health and provide for enhanced fire protection. Project should include additional studies for locating water supply wells (building on historical data and the existing conceptual model report), evaluate if existing monitoring Well No. JVHI can be deepened and converted to a production well and CEQA/NEPA studies.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Other small water systems may have similar challenges in funding a similar projects in rural, economically disadvantaged, low density, areas.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Feasibility was addressed in Water Infrastructure Restoration Program Mitigated Negative Declaration June 2010.

Project Location

Descriptive (Description of property location etc.):

Design and installation of pressurized water distribution mainlines, elevated storage tanks, wells, (possible) pump stations and (possible) pressure reducing stations in the developed areas of the Agency service area currently without a pressurized distribution system.

Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:	

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☑
Project Status (Check all that apply):	CEQA 2010 addresses WIRP which includes JV feasibility	Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	2020-2025				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*				
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				
Conceptual Model (2007) indicates there could be a surplus of groundwater in the Johnson Valley aquifer that is otherwise lost to evaporation and/or becomes too salty for human consumption as the groundwater flows (discharges) to the dry lake beds to the north. Therefore, this could be a conservation project.				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☑	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☑	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☑	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☑	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☑	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 49

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

City of Victorville

Agency / Organization / Individual Address:

P.O. Box 5001. Victorville, California 92393-5001
14343 Civic Drive, Victorville, California 92392-2399

Possible Partnering Agencies:

California Department of Fish and Wildlife, Mojave Water Agency, Victor Valley College: Mojave Desert Resource Conservation District (RCD), Mojave River Watershed Group(MRWG): Lewis Center For Educational Research,(Lewis Center), California Water Environment Association, Victor Valley Wastewater Reclamation Authority: Mojave Environmental Education Consortium (MEEC) ; which is the High Desert Zone for the California Regional Environmental Education Community (CREEC) Network, Victorville Unified School District, Victor Valley Union High School District (VVUHSD); Cities of Hesperia, Adelanto, Town of Apple Valley and Barstow: Barstow College, State of California, the County of San Bernardino, San Bernardino County Department of Aging and Adult Services, and Mojave Desert Air Quality Management District.

Name:*

Steve Ashton

Title:

Water Supply Manager

Telephone:*

760-955-2482

Fax:

760-269-0088

Email:*

SAshton@victorvilleca.gov

Website:

www.victorvilleca.gov

Project Name:*

Mojave Riverwalk EducationalTrailway as an Conservational Concept enhancement to Mojave Riverwalk Project proposed by Louie Rodriquez, Public Works Manager

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	34°28'16"N	**Project Longitude:**	117°17'37"

Location Description:	Phase I: from north to south, Eva Dell Park, an existing portion of Class I trail north of the Mojave Riverwalk Project site at existing 6th street trailhead in Old Town Victorville. Trail users will be directed west by signage, crossing the Victor Valley Transportation Center (VVTC) on surface roads , crossing D street to Hesperia Rd toward the future Greentree / Yates Rd toward the Apple Valley Yucca Loma Bridge. On Yates Rd alongside the Mojave River toward the Victor Valley College;(linking: the Victor Valley Transportation Center, Center Street Park, Mojave Narrows Regional Park (MNRP), the planned Yucca Loma Bridge over the Mojave River, Town of Apple Valley bikeways, and Victor Valley College) Phase II: connect an east bank trail link to the Lewis Center by Beginning at Eva Dell Park; 15714 1st street in Victorville go East and South along the River, (option 1) crossing Rainbow Bridge or (option 2) crossing at the addition of two Mojave River crossings (future), to the Lewis Center, continuing south and along the East side of the Mojave River crossing to the West at the Yucca Loma Bridge (future: Yucca Loma Project), continuing South along the West side of the Mojave River to the Victor Valley College and Phase III: connecting a link to travel further South on the East side of the River from the Victor Valley College Campus, to the MWA Operations Facility/Interpretive Center.

Project Cooperating Agency (ies)/Organization(s)/Individual(s):

- Louie Rodriquez, Public Works Manager, City of Victorville
- Steve Ashton, Water Supply Manager Victorville Water District
- Donna McCormick, Water Conservation Supervisor
- Kathy Cochran, Water Conservation Specialist II
- Dana Armstrong, Sanitation Manager,
- Christy Huiner, Mojave Water Agency
- Tim Gobler, Mojave Water Agency
- California Department of Fish and Game
- Neville Slade, Victor Valley College

Project Status (e.g., new, ongoing, expansion, new phase):

The Proposed Mojave Riverwalk Educational Trailway is a proposed enhancement of the 'Mojave River Walk Project' which is in the design phase with completion expected in 2015.

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Conceptual

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

Will benefit by an aesthetically pleasing environmentally friendly pedestrian, bicyclist enthusiast, and disabled individual access pathways providing recreational and educational pathway along the Mojave River and the Mojave narrows Regional Park as well as connecting Victor Valley Transportation Center (VVTC) plaza to Victor Valley College Campus; with future phases incorporating access to the Lewis Center and MWA Operations Facility /Interpretive Center, Hesperia.

Needs the project will address:

- Preservation
- Restoration
- Invasive species removal
- Provide Safe, Educational and alternative transportation links to various locations

Watershed Rehabilitation

- Restoration of lands
- Enhance unimproved areas for erosion controls
- Incorporate flood control
- Channel and riparian restoration

Environmental Resources Stewardship

- Into the hands of local supporters
- River cleanup
- Citizen involvement

Benefits it will provide

- Access to safe recreational activity-providing safe, educational and alternative transportation links to regional interest points
- Walking, bicycling, jogging enthusiasts to include access for disabled individuals and dog lovers
- A lack of this type of land use
- Use projections- Increasing number of bicyclists in the area

Education

- Provide accessibility to enhance river identity
- Demonstrate local hydrology/geology
- Empower community awareness with knowledge

Community Connectivity

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The proposed, " Mojave Riverwalk Educational Trailways' would provide opportunities for regional partners to link and collaborate on complementary programs, planning and partnership efforts in the promotion, development and design of Educational Topic stations and demonstrations gardens established among specific points along the route of the 'Mojave River Walk Project' and to link future phases I and II. These Topics can demonstrate conservation educational components, to include a variety of information: Where Water Comes From, Water Treatment and Distribution: Urban Runoff Management Drinking, Drought Preparedness: Watershed Protection, Stormwater Pollution Prevention, Recycling and additional Conservation Components, establishing the following Goals:

1. Identify portions of the 'Mojave River Walk Project' that would benefit as "Educational station points along the trail"; prioritizing to facilitate five demonstration gardens , seven outdoor Educational and audible Kiosks; benches , pedestrian and canine drinking fountain facilities, and designing sidewalks and trails for disabled individuals to access.
2. Coordinate Public Outreach and Partnership input: Partners identified in this project proposal have expressed interest in or will be invited to participate in an open group forum, and the feedback from this forum will help to further the development, construction and curriculum of the proposed project, " "Mojave Riverwalk Educational trailways"
3. Research, development and conduct an environmental review of an east bank trail alignment to be adjacent to the Lewis Center for Educational Research (Lewis Center) campus –which would require the addition of two Mojave River crossings and possibility of using 'Rainbow Bridge' as a crossing.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

• Mojave River
• Upper Mojave River Valley groundwater basin
•
•

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

• Mojave Riverwalk Project - FP No. STPLER 5380 (013) Revised Project Description – March 12, 2013
• MOJAVE RIVERWALK TRAIL MASTER PLAN

How do you rate the technical feasibility of the proposed project?

X☐ High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	☐ Primary	☐ Secondary	☐ NA	
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	☐ Primary	☐ Secondary	☐ NA	
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	x☐ Primary	☐ Secondary	☐ NA	
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	x☐ Primary	☐ Secondary	☐ NA	
9. Improve stormwater management throughout the Plan area.	x☐ Primary	☐ Secondary	☐ NA	
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	x☐ Primary	☐ Secondary	☐ NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	☐ Primary	☐ Secondary	☐ NA	
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	x☐ Primary	☐ Secondary	☐ NA	

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	☐ Secondary	☐ NA	
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	☐ Secondary	☐ NA	
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	☐ Primary	☐ Secondary	☐ NA	
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	☐ Primary	☐ Secondary	☐ NA	
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	x☐ Primary	☐ Secondary	☐ NA	
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	☐ NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	☐ Secondary	☐ NA	Agricultural Water Use Efficiency
x☐ Primary	☐ Secondary	☐ NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	☐ NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	☐ NA	System Reoperation
☐ Primary	☐ Secondary	☐ NA	Water Transfers
☐ Primary	☐ Secondary	☐ NA	Other (Please State):_____
Increase Water Supply			
☐ Primary	☐ Secondary	☐ NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	☐ NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	☐ NA	Precipitation Enhancement
☐ Primary	☐ Secondary	☐ NA	Recycled Municipal Water
☐ Primary	☐ Secondary	☐ NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Water Quality			
☐Primary	☐Secondary	☐ NA	Drinking Water Treatment and Distribution
☐ Primary	☐ Secondary	☐ NA	Groundwater/Aquifer Remediation
☐ Primary	☐ Secondary	☐ NA	Matching Quality to Use
x☐ Primary	☐ Secondary	☐ NA	Pollution Prevention
☐ Primary	☐ Secondary	☐ NA	Salt and Salinity Management
x☐ Primary	☐ Secondary	☐ NA	Urban Runoff Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	☐ NA	Agricultural Lands Stewardship
☐ Primary	☐ Secondary	☐ NA	Economic Incentives (loans, grants, water pricing)
x☐ Primary	☐ Secondary	☐ NA	Ecosystem Restoration
☐ Primary	☐ Secondary	☐ NA	Forest Management
x☐ Primary	☐ Secondary	☐ NA	Land Use Planning and Management
☐ Primary	☐ Secondary	☐ NA	Recharge Areas Protection
☐ Primary	☐ Secondary	☐ NA	Water-Dependent Recreation
x☐ Primary	☐ Secondary	☐ NA	Watershed Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☐ Secondary	☐ NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	☐ NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	x☐ Yes ☐ No
If yes, please identify the program	The Urban Water Management Plan promoting conservation programs—DMM 7: Public Information Programs, DMM 8: School Education Programs, DMM 13:Water Waste Prohibition Alliance for Water Awareness and Conservation, (AWAC) operational plan; To coordinate Water Conservation efforts, participating agencies acting collaboratively as stakeholders in water conservation within the Mojave Water Agency 4,900 sq mile service area.

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	X Educational Component	2015 **(mm/dd/yyyy)**
Feasibility Study	_____	_____ **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	X –Mojave Riverwalk Project	2015 **(mm/dd/yyyy)**
CEQA/NEPA	_____	_____ **(mm/dd/yyyy)**
Permits	_____	_____ **(mm/dd/yyyy)**
Construction Drawings	_____	_____ **(mm/dd/yyyy)**
Funding	_____	_____ **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

Funding for the Mojave Riverwalk Project is provided by Transportation Enhancement Act (TEA) administered through SANBAG and Local Transportation Fund (LTF)

Funding for the enhancement to the Project-Mojave Riverwalk Educational Trailway has not been identified but is in conceptual phase

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

The Mojave Riverwalk trail and the enhancement of "educational trailway station points" encourages environmental resource stewardship by the people and communities enhancing the river's identity via public access exposure. Encourages healthy lifestyle living, offering a safe place to get out of doors and off public roads. Connects entities to pull local strengths to preserve natural habitats and watershed.

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?
x☐ Yes ☐ No ☐ Not Sure

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?
☐ Yes x☐ No ☐ Not Sure

Does the project provide specific benefits to critical water issues for Native American tribal communities?
☐ Yes x☐ No ☐ Not Sure
If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
☐	Increases Water Supply Reliability	
☐	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
x☐	Increases Water Use and/or Reuse Efficiency	
☐	Provides Additional Water Supply	
x☐	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☐	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State:	
☐	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☐	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	x☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	x☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☐	Other (Please State):
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
x☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☐	Improves Water System Energy Efficiency	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
x☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($): 5,500,000.00_____
(Educational enhancements:$ 320,000) Proposed: Mojave Riverwalk Education Trail as an enhancement Conservational concept to the proposed project: Mojave Riverwalk Project.

Upper estimated total capital cost ($): 12,000,000.00_____

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($): N/A _____

Annual Operation and Maintenance Cost ($): N/A_____

Design Life of Project (years): 40_____

Economic Feasibility

Is the project cost-effective?		
☐ Yes	☐ No	x☐ Not Sure
Does the project have a positive benefit-cost ratio?		
☐ Yes	x☐ No	☐ Not Sure

Project No. 54

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

Mojave Water Agency

Agency / Organization / Individual Address:

13846 Conference Center Drive
Apple Valley, Ca 92307

Possible Partnering Agencies:

City of Victorville
San Bernardino County Flood Control District

Name:*

Darrell Reynolds

Title:

Senior Project Engineer/Engineering Controller

Telephone:* 760-946-7023

Fax: 760-240-2001

Email:*

dreynolds@mojavewater.org

Website:

Project Name:*

Oro Grande Wash Groundwater Recharge Project

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: 34dgrs 27' 42.22" N **Project Longitude:** 117dgrs 21' 49.31" W

Location Description:	Recharge Basins - Oro Grande Wash at Sycamore St & Amethyst Rd, Victorville to Oro Grande wash and Bear Valley Road Pipeline extension from Cobalt Rd and Cloverly Ave to the outlet in the Oro Grande wash Recharge Basins.

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- City of Victorville
- San Bernardino County Flood Control District
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

Phase to Expand to full recharge capacity 6,000 AF/YR

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Implementable Project

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The Oro Grande Wash Groundwater Recharge Project has an ultimate delivery capacity for approximately 8,000 AF/YR. This is a groundwater recharge project in the Alto Regional Aquifer.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The Oro Grande Wash Groundwater Recharge Project has an ultimate delivery capacity for approximately 6,000 AF. The trunk facilities are designed to flow the full capacity. The Flow control facility and pipeline into the wash is designed to flow half of the capacity into a joint use San Bernardino County Flood Control Detention/Recharge Basin. The second phase of this project is to construct a second pipeline to the wash and another groundwater recharge area between Amethyst and Bear Valley Road

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Alto Regional Aquifer
-
-
-

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

- Addendum No 2 to MWA Water Supply Reliability Groundwater Repleinishment Program Final Project EIR
-
-

How do you rate the technical feasibility of the proposed project?

X High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.

☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	X Primary	☐ Secondary	☐ NA	
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	X Primary	☐ Secondary	☐ NA	
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	☐ Primary	☐ Secondary	☐ NA	
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☐ Primary	☐ Secondary	☐ NA	
9. Improve stormwater management throughout the Plan area.	☐ Primary	☐ Secondary	☐ NA	
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	☐ Secondary	☐ NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	☐ Primary	☐ Secondary	☐ NA	
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	☐ Primary	☐ Secondary	☐ NA	

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	☐ Secondary	☐ NA	
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	☐ Secondary	☐ NA	
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	X Primary	☐ Secondary	☐ NA	
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	X Primary	☐ Secondary	☐ NA	
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	☐ Secondary	☐ NA	
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	☐ NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	☐ Secondary	☐ NA	Agricultural Water Use Efficiency
☐ Primary	☐ Secondary	☐ NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	☐ NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	☐ NA	System Reoperation
☐ Primary	☐ Secondary	☐ NA	Water Transfers
☐ Primary	☐ Secondary	☐ NA	Other (Please State):_____
Increase Water Supply			
X Primary	☐ Secondary	☐ NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	☐ NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	☐ NA	Precipitation Enhancement
☐ Primary	☐ Secondary	☐ NA	Recycled Municipal Water
☐ Primary	☐ Secondary	☐ NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Water Quality			
☐Primary	☐Secondary	☐ NA	Drinking Water Treatment and Distribution
☐ Primary	☐ Secondary	☐ NA	Groundwater/Aquifer Remediation
☐ Primary	☐ Secondary	☐ NA	Matching Quality to Use
☐ Primary	☐ Secondary	☐ NA	Pollution Prevention
☐ Primary	☐ Secondary	☐ NA	Salt and Salinity Management
☐ Primary	☐ Secondary	☐ NA	Urban Runoff Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	☐ NA	Agricultural Lands Stewardship
☐ Primary	☐ Secondary	☐ NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	☐ Secondary	☐ NA	Ecosystem Restoration
☐ Primary	☐ Secondary	☐ NA	Forest Management
☐ Primary	☐ Secondary	☐ NA	Land Use Planning and Management
☐ Primary	☐ Secondary	☐ NA	Recharge Areas Protection
☐ Primary	☐ Secondary	☐ NA	Water-Dependent Recreation
☐ Primary	☐ Secondary	☐ NA	Watershed Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☐ Secondary	☐ NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	☐ NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	X Yes ☐ No
If yes, please identify the program	_____

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	Completed	_____ **(mm/dd/yyyy)**
Feasibility Study	_____	_____ **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	_____	_____ **(mm/dd/yyyy)**
CEQA/NEPA	Completed	_____ **(mm/dd/yyyy)**
Permits	_____	_____ **(mm/dd/yyyy)**
Construction Drawings	_____	_____ **(mm/dd/yyyy)**
Funding	_____	_____ **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

The Phase 2 construction of the Oro Grande Wash Ground Water Recharge Basins will ultimately allow up to 8,000 AF/YR of groundwater recharge in the ALTO Regional Aquifer.

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?
☐ **Yes** ☐ **No** ☐ **Not Sure**

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?
☐ **Yes** ☐ **No** ☐ **Not Sure**

Does the project provide specific benefits to critical water issues for Native American tribal communities?
☐ **Yes** ☐ **No** ☐ **Not Sure**
If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
X	Increases Water Supply Reliability	
☐	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
☐	Provides Additional Water Supply	
☐	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
X	Addresses Sea Level Rise	
☐	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State:	
☐	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☐	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☐	Other (Please State):
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☐	Improves Water System Energy Efficiency	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($): 2,000,000_____

Upper estimated total capital cost ($): 3,000,000_____

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($): 300,000

Annual Operation and Maintenance Cost ($): _____

Design Life of Project (years): 30

Economic Feasibility

Is the project cost-effective?		
☐ Yes	☐ No	☐ Not Sure
Does the project have a positive benefit-cost ratio?		
☐ Yes	☐ No	☐ Not Sure

Project No. 53R

Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed BY ***August 1, 2013*** to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

Mojave Water Agency

Agency / Organization / Individual Address:

13846 Conference Center Drive Apple Valley, CA 92307-4377

Possible Partnering Agencies:

R3 Water Purveyors (Victorville, Hesperia, Adelanto, Apple Valley Ranchos, Golden State)

Name:*

Tony Winkel

Title:

Senior Hydrogeologist

Telephone:* 760-946-7037

Fax: 760-2402642

Email:*

twinkel@mojavewater.org

Website:

mojavewater.org

Project Name:*

Alto Subarea Regional Aquifer Storage and Restoration (ASR^2)

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: **Project Longitude:**

Location Description:	Victorville, Hesperia, Apple Valley, Adelanto

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

-
-
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

New

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Conceptual Implementable Project

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The R3 Project, recently completed by MWA, serves as a direct link between banked State Project Water in the Flood Plain Aquifer to many of the larger water purveyors in the most populated area within the MWA service area. This project takes advantage of the rapid recharge capacity and high well yields of the Flood Plain Aquifer and then delivers water to areas of need away from the river where aquifer characteristics are considerably less favorable. The R3 project is directly connected to the distribution systems of the major water purveyors in the Alto Subarea. Most of these distribution systems service populated areas over the Regional Aquifer. The Regional Aquifer has less favorable hydraulic characteristics than the Flood Plain Aquifer. In spite of this many water supply wells draw upon the Regional Aquifer and as a result it has experienced significant water level declines. This is because the demand for water exceeds the natural regional supply. Supplemental artificial recharge is a well-known and a widely accepted practice within the water supply industry, however, recharge facilities and supporting infrastructure are lacking in the Regional Aquifer.

Significant potable water distribution infrastructure exists and services the large populated areas in the Alto Subarea. In addition, this infrastructure is directly connected to the Regional Aquifer though approximately 100 municipal water supply wells. During the peak summer months many

of these wells are online supplying water to meet demand. However, during the cooler months less than a third of these wells are utilized (Wayne Vogel, Personal Communication, May 22, 2013). Rather than sitting idle these wells could be used to inject water directly where it is needed into the Regional Aquifer to be pumped out later by the very same well. In the winter there are approximetly 70 wells that could be used for ASR recharge. Hypothetically, over a 6-month annual interval with an injection rate of 1000 gpm each, the recharge potential for an R3-ASR Project would be approximately 56,500 acre-feet per year.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The Alto Subarea Regional Aquifer Storage and Restoration (ASR^2) project would use water from the Mojave Water Agency R-Cubed infrastructure to inject potable water into existing municipal wells in the regional aquifer. Injection would be timed to periods when these wells would not normally be in service (fall-winter). Injected water would be available for immediate use by purveyors during normal demand periods (spring- summer). This project uses existing equipment with very little new infrastructure. Costs incurred would be for minimal retrofitting at wellheads, periodic well cleaning, and injected water.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Mojave River
- Flood Plain Aquifer
- Regional Aquifer
-

Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

- Waterboard, 2013, General Waste Discharge Requirements for Aquifer Storage and Recovery Projects that Inject Drinking Water into Groundwater, State Water Resources Control Board, Source: http://www.waterboards.ca.gov/water_issues/programs/asr/ accessed May 29, 2013
- MWH, 2013, Aquifer Storage and Recovery in California: Current Projects and Issues, Suzanne K. Mills, Chris E. Petersen, and Jordan Mamerel, October 7, 2009, Source: https://sunsite.berkeley.edu/WRCA/WRC/pdfs/GW27thMills.pdf

Accessed May 30, 2013.
• USGS, 2013, Aquifer Storage and Recovery, United States Geological Survey, Source: http://ca.water.usgs.gov/misc/asr/, Accessed May 30, 2013

How do you rate the technical feasibility of the proposed project?

☒ High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	☒ Primary	☐ Secondary	☐ NA	Expands the R3 Water-Bank to the Regional Aquifer directly to the most critical populated areas
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	☒ Primary	☐ Secondary	☐ NA	Banks water in the historically over-drafted Alto Regional Aquifer
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	☒ Primary	☐ Secondary	☐ NA	Banks replacement water in critical areas of direct use reducing pumping costs and eliminating the need to replace depleted wells
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☒ Primary	☐ Secondary	☐ NA	Banked water would raise the level of groundwater in the Alto Regional Aquifer which has the potential to restore historical springs along the river that have been long dry
9. Improve stormwater management throughout the Plan area.	☐ Primary	☒ Secondary	☐ NA	Lower Floodplain Aquifer Levels may facilitate more storm water infiltration
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	☐ Secondary	☒ NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	☒ Primary	☐ Secondary	☐ NA	Injection water could be used to dilute/blend with groundwater insitu

Mojave IRWM Plan Objective	Contribution			Description
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	☐ Primary	☒ Secondary	☐ NA	If analysis demonstrated that the project would in fact conserve storm water through increased storm-event recharge, the State of California would support the project. The Recycled Water Policy (State Water Resources Control Board Resolution No. 2009-0011) states that "the State Water Board will also request priority funding for storm water recharge projects that augment local water supplies." ((11)(a)) – CWRCB, 2013) The Policy also sets aggressive goals for storm water recharge. A project such as this one would help the State meet these goals.
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	☒ Secondary	☐ NA	If analysis demonstrated that the project would in fact conserve storm water through increased storm-event recharge, the State of California would support the project. The Recycled Water Policy (State Water Resources Control Board Resolution No. 2009-0011) states that "the State Water Board will also request priority funding for storm water recharge projects that augment local water supplies." ((11)(a)) – CWRCB, 2013) The Policy also sets aggressive goals for storm water recharge. A project such as this one would help the State meet these goals.
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	☐ Secondary	☒ NA	

Mojave IRWM Plan Objective	Contribution			Description
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	☒ Primary	☐ Secondary	☐ NA	Aggressive injection/recharge would be performed during periods of plentiful water. This would contribute to banked water surplus for dry periods
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	☒ Primary	☐ Secondary	☐ NA	Significant existing potable water distribution infrastructure could be used to bank water when available through imported supply or exchange agreements and stored for times of need
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	☐ Secondary	☒ NA	
6. Prevent land subsidence throughout the Region.	☒ Primary	☐ Secondary	☐ NA	Prevention or reversal of groundwater level declines would decrease subsidence potential

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	☐ Secondary	☒ NA	Agricultural Water Use Efficiency
☐ Primary	☐ Secondary	☒ NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	☐ Secondary	☒ NA	Conveyance – Delta, Regional/Local
☐ Primary	☐ Secondary	☒ NA	System Reoperation
☒ Primary	☐ Secondary	☐ NA	Water Transfers
☐ Primary	☐ Secondary	☒ NA	Other (Please State):_____
Increase Water Supply			
☒ Primary	☐ Secondary	☐ NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	☒ NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	☒ NA	Precipitation Enhancement
☐ Primary	☐ Secondary	☒ NA	Recycled Municipal Water
☐ Primary	☐ Secondary	☒ NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	☒ NA	Other (Please State): _____
Improve Water Quality			
☐Primary	☒Secondary	☐ NA	Drinking Water Treatment and Distribution
☒ Primary	☐ Secondary	☐ NA	Groundwater/Aquifer Remediation
☐ Primary	☐ Secondary	☒ NA	Matching Quality to Use
☐ Primary	☐ Secondary	☒ NA	Pollution Prevention
☐ Primary	☐ Secondary	☒ NA	Salt and Salinity Management
☐ Primary	☐ Secondary	☒ NA	Urban Runoff Management
☐ Primary	☐ Secondary	☒ NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	☒ NA	Agricultural Lands Stewardship
☐ Primary	☐ Secondary	☒ NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	☒ Secondary	☐ NA	Ecosystem Restoration
☐ Primary	☐ Secondary	☒ NA	Forest Management
☐ Primary	☐ Secondary	☒ NA	Land Use Planning and Management
☐ Primary	☐ Secondary	☒ NA	Recharge Areas Protection
☐ Primary	☐ Secondary	☒ NA	Water-Dependent Recreation
☒ Primary	☐ Secondary	☐ NA	Watershed Management
☐ Primary	☐ Secondary	☒ NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☒ Secondary	☐ NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	☒ NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	☐ Yes ☐ No
If yes, please identify the program	Project would be an expansion of R3

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	N/A	(mm/dd/yyyy)
Feasibility Study	N/A	(mm/dd/yyyy)
Preliminary Design and Cost Estimates	N/A	(mm/dd/yyyy)
CEQA/NEPA	N/A	(mm/dd/yyyy)
Permits	N/A	(mm/dd/yyyy)
Construction Drawings	N/A	(mm/dd/yyyy)
Funding	N/A	(mm/dd/yyyy)

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

Pilot projects up to 24 months could commence immediately without a permit. Minor well head modifications to allow for backward injection flow would be the only infrastructure improvements required

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

Funding sources have not been identified, however, the minimal costs associated with using existing infrastructure may eliminate the need for outside funding

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

- **Revenue source for MWA**
- **Eliminates need for costly new recharge projects**
- **No new infrastructure required**
- **No evaporation losses**
- **Decreased pumping costs for purveyors**
- **Virtually unlimited storage space**
- **Recharge water injected directly in areas of critical impact**
- **Insitu dilution of water quality impairments**
- **Decreased loss of banked water through the Narrows**
- **Enhanced flood control**
- **Increased Flood Plain storage capacity and retention of lost storm water**
- **State funding**
- **Riparian restoration**

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?

☐ **Yes** ☐ **No** ☒ **Not Sure**

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?

☒ **Yes** ☐ **No** ☐ **Not Sure**

Does the project provide specific benefits to critical water issues for Native American tribal communities?

☐ **Yes** ☐ **No** ☒ **Not Sure**

If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
☒	Increases Water Supply Reliability	
☒	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
☐	Provides Additional Water Supply	
☐	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☒	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State: Banked water would offset the potential reliability concerns of climate change	
☒	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☒	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☒	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☒	Other (Please State): Restoration of Regional Aquifer groundwater levels may restore long-dry springs along the river
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
☒	Improves Water System Energy Efficiency	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($): Unknown

Upper estimated total capital cost ($): Unknown

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($): Unknown

Annual Operation and Maintenance Cost ($): Unknown

Design Life of Project (years): Unknown

Economic Feasibility

Is the project cost-effective?		
☐ Yes	☐ No	☒ Not Sure
Does the project have a positive benefit-cost ratio?		
☐ Yes	☐ No	☒ Not Sure

Project No. 57

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Recycled (Reclaimed) Water Distribution System		
Project Sponsor:	City of Hesperia		
If Joint Project, Other Partners:	Victor Valley Wastewater Reclamation Authority, Mojave Water Agency		
Project Website (if available):	N/A		
Project Contact Person:	Phone	FAX	Email
John Leveillee, City Engineer	760-947-1451	760-244-2515	jleveillee@cityofhesperia.us

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Implementable Project

Project Description (1 -2 sentences):

Construct a reclaimed water distribution system for the conveyance of recycled water from the VVWRA Hesperia Water Reclamation Plant to locations throughout the City of Hesperia. The system includes a non-potable reservoir on Live Oak Street, booster pumps, and approximately eight miles of "purple" pipeline to convey recycled water to the Hesperia Golf Club and several other users currently

Project Integration (Describe how the project does or could integrate with other projects in the Region):

The project integrates with the construction of the Hesperia Water Reclamation Plant being constructed by VVWRA and has the potential to significantly decrease the use of potable water by the Hesperia Water District. The Distribution System will connect to existing "purple pipe" irrigation systems already installed in certain areas throughout the City, including several high density residential

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Regional Water Management Plan, Supply Enhancement Project, and Capital Improvement Plan.

Project Location

Descriptive (Description of property location etc.):

The pipeline project is being constructed within existing street rights of way, thus eliminating the need for onerous environmental studies. The pipeline alignment has been designed by City Staff which runs from the Water Reclamation Plant on Mojave Street southwesterly to a 2.5 million gallon reservoir on Live Oak Street and then proceeds easterly through the City to the Hesperia Golf

Latitude/Longitude - info available at: http://geocoder.us/	Lat: N/A	Long: N/A

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☑
Project Status (Check all that apply):		Conceptual ☐	In-Design ☑	Ready to Implement ☐	CEQA Complete ☑ N/A ☐
Estimated Year of Completion:	Spring, 2016				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF	
DACs Involvement *Y/N:*	**Yes, areas to be served are within DAC Groups.**			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*	No	Multi-benefit Y/N:	No	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*	Yes			
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☑	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☑	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☑	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☑	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☑	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☑	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☑	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☑	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☑	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 58

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Regional Aquifer Recharge Capacity		
Project Sponsor:	MWA		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Tony Winkel	760-946-7037	760-240-2642	twinkel@mojavewater.org

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Conceptual

Project Description (1 -2 sentences):

MWA has very little off-river aquifer recharge capacity. During wet periods, when SWP water is plentiful and "cheap," the river is likely to be full and unable to accept recharge. MWA needs to be able to accept large a quantity of water in a relatively short (wet) period. This could be accomplished through a variety of infrastructure. Once such infrastructure combination could include surface water impoundment for later distribution to recharge ponds, ASR injection wells, etc... In addition this project could easily be expanded to a water bank with an aqueduct pump-back component for "buy low/sell high" of banked water.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

This project would expand and improve upon existing recharge efforts and create a significant buffer against highly variable imported water supply by banking water in wet periods in preparation for dry periods. This project could also possition local stake holders to benifit finacially by providing surplus banked water to downstream aquduct users in dry periods.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Bookman-Edmonston, 2005, Technical Study to Evaluate a Potential Long-Term Water Management Program Between The Mojave Water Agency and Metropolitan Water District, Date: December 2005, Project No: 042810

Project Location

Descriptive (Description of property location etc.):

Various - along the aqueduct and connecting aquifer rechage infrastructure.

Latitude/Longitude - info available at: http://geocoder.us/	Lat:		Long:	

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☑
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	?				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*	Yes	Multi-benefit Y/N:	Yes	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

Regional Aquifer Recharge, Revenue source to local stakeholders, Decreased pumping costs, protection against variability of imported supply.

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☑	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☑	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☑	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities

- [x] Drought Preparedness
- [ ] Use and Reuse Water More Efficiently
- [x] Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
- [ ] Expand Environmental Stewardship
- [ ] Practice Integrated Flood Management
- [ ] Protect Surface and Groundwater Quality
- [ ] Improve Tribal Water and Natural Resources
- [ ] Ensure Equitable Distribution of Benefits

Program Preferences

- [x] Include Regional Projects or Programs
- [ ] Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
- [ ] Effectively Resolve Significant Water-Related Conflicts within or between Regions
- [ ] Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
- [ ] Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
- [x] Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies

[ ] Agricultural Lands Stewardship	[ ] Pollution Prevention
[ ] Agricultural Water Use Efficiency	[ ] Precipitation Enhancement
[x] Conjunctive Management and Groundwater Storage	[x] Recharge Areas Protection
[ ] Conveyance - Delta, Regional/Local	[ ] Recycled Municipal Water
[ ] Desalination - Brackish & Seawater	[x] Salt & Salinity Management
[ ] Drinking Water Treatment and Distribution	[x] Surface Storage - CALFED
[ ] Economic Incentives	[x] Surface Storage - Regional/Local
[ ] Ecosystem Restoration	[ ] System Reoperation
[ ] Flood Risk Management	[ ] Urban Runoff Management
[ ] Forest Management	[ ] Urban Water Use Efficiency
[x] Groundwater/Aquifer Remediation	[x] Water Transfers
[x] Land Use Planning & Management	[x] Water-Dependent Recreation
[ ] Matching Water Quality to Water Use	[ ] Watershed Management

Project No. 59

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:	Regional Flood Control / Flood Management Plan				
Project Sponsor:	Mojave Water Agency; San Bernardino County Flood Control District				
If Joint Project, Other Partners:	Town of Apple Valley; City of Barstow; City of Hesperia; City of Adelanto; City of Victorville; Town of Yucca Valley				
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Project Description					
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)					
Design; planning document					
Project Description (1 -2 sentences):					
Prepare a multi-jurisdictional, regional flood control / flood management plan that integrates flood data and information, coordinates flood control efforts and infrastructure, and seeks to integrate flood management and water supply projects across the Mojave IRWM Region.					
Project Integration (Describe how the project does or could integrate with other projects in the Region):					
Many potential options for integration, particularly the development of dual-use flood management and groundwater recharge infrastructure. The plan should identify areas of overlap between flood control, water supply and potentially recreational facilities.					
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):					
SB County Flood Control District has existing plans for flood control infrastructure, including individual projects. Most or all cities have some form of flood management plan, for example a Master Plan of Drainage.					
Project Location					
Descriptive (Description of property location etc.):					
Entire IRWM Region					
Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Not sure				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	No			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*	Yes			
Stormwater: *Reduction in Flood Damage (Y/N):*	Yes	Multi-benefit Y/N:	Yes	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*	No			
Environmental Stewardship/Public Awareness *Direct Benefits:*	No			
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met		
Prim.	**Second.**	
☐	☑	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☑	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☑	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☑	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☑	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☑	Expand Environmental Stewardship
☑	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☑	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☑	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☑	Conjunctive Management and Groundwater Storage	☑	Recharge Areas Protection
☑	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☑	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☑	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 60R

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Reorganization between two adjacent small water agencies (BDVWA and CSA 70 Zone W-1 [Landers])		
Project Sponsor:	Bighorn-Desert View Water Agency		
If Joint Project, Other Partners:	Customers of CSA 70/Zone W-1		
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Marina West	760-364-2315	760-364-3214	bdvwa2@mindspring.com

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Customers of CSA 70/Zone W-1 Landers have inquired about reorganization with BDVWA. LAFCO has granted the SOI, and BDVWA already serves some W-1 customers. This is beyond concept,BDVWA Board of Directors desires reorganization. Issue is how to accomplish.

Project Description (1 -2 sentences):

Initiate reorganization through LAFCO. Provide for LAFCO processing fees, boundary map, preparation of TFM Report (Technical, Financial and Managerial) plan for operation of consolidated entities and evaluate physical infrastructure tie-in. Possible need for Master Plan identifying infrastructure improvements and build-out requirements.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Propose that the project can be part of a larger integrated program incorporating all needs for small water systems. Project Nos. 6 - Bar-Len Arsenic and Metering Project (metering portion, Arsenic treatment could be integrated with projects like Project No. 80), Project No. 7 - Assistance Program for Small Drinking Water Systems, Project No. 15 - Center Water, Project No. 19 - Hinkley, Project No. 36 - Infrastructure Improvement Projects, Project No. 44 - Lucerne Valley Small Water Systems Feasibility, Project No. 45 - Mesa Tank #4, etc., Project No. 69 - SCADA, Project No. 74 - Water Infrastructure Restoration Program, Project Nos. 83, 84, and 85).

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Customers of CSA 70/Zone W-1 Landers have inquired about reorganization with BDVWA. LAFCO has granted the SOI, and BDVWA already serves some W-1 customers. BDVWA Board of Directors desires reorganization to improve (cost) efficiencies, provide local governance and local agency office for customer service.

Project Location

Descriptive (Description of property location etc.):

"eastern" Landers.

Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:	

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☑	$100K - $1M ☐	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☑	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	2013/14				

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*	Yes		
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			
Provide community now served by County of San Bernardino Special Districts Department with local governance (local elected board focused on water supply only), local office for customer service, cost efficiency.			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met		
Prim.	**Second.**	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☑	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☑	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☑	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☑	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☑	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☑	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☑	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 62R

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **September 12, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Revised Project 62 Water Conservation Ordinance		
Project Sponsor:			
If Joint Project, Other Partners:	MWA, San Bernardino County, Stakeholders and possibly Mojave Desert Recourse Conservation District		
Project Website (if available):	None		
Project Contact Person:	Phone	FAX	Email
Jim, Ellen Johnson	760 257 3299		Jimel1983@gmail.com

Project Description
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)
Possibly all of the above?
Project Description (1 -2 sentences):
A water conservation ordinance in the unincorporated areas of San Bernardino County, within the MWA Jurisdictional Boundary. The MWA has said that the Judgment alone may not be adequate to address all of the water conservation measures that need to be taken to balance water supply and demands in the Baja Subarea. At a Silver Valley Farm Bureau meeting stakeholders were approached about singing into the stipulated agreement. At that time County Ordinance 810.0605-810.0610 was referred to, to be our protection against unauthorized production. This ordinance was removed in 2007. A new ordinance could help to insure an equitable share of the benefits made possible by the Physical Solution.
Project Integration (Describe how the project does or could integrate with other projects in the Region):
A water conservation ordinance that could help with the Injunction Against Unauthorized Production (Judgment After Trial), and to help water users within each hydrological subarea to proceed with an orderly water resource planning and development. Project could integrate with Projects 1, 10, 11, 20, 46, and 71
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):
MWA, S.B. County and Stakeholders

Project Location		
Descriptive (Description of property location etc.): Unincorporated areas in the S.B. County within MWA's jurisdiction		
Latitude/Longitude - info available at: http://geocoder.us/	Lat:	Long:

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):

Estimated Cost: ☐ ☐ ☐ ☐

	<$100K	$100K - $1M	$1M - $10M	>$10M
Project Status (Check all that apply):	☐ Conceptual	☐ In-Design	☐ Ready to Implement	☐ CEQA Complete ☐ N/A
Estimated Year of Completion:				

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☑	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.

☐	☑	9. Improve stormwater management throughout the Plan area.
☑	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☑	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☑	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☑	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☑	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☑	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☑	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship

- [ ] Practice Integrated Flood Management
- [x] Protect Surface and Groundwater Quality
- [ ] Improve Tribal Water and Natural Resources
- [x] Ensure Equitable Distribution of Benefits

Program Preferences

- [x] Include Regional Projects or Programs
- [x] Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
- [x] Effectively Resolve Significant Water-Related Conflicts within or between Regions
- [ ] Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
- [x] Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
- [x] Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies

- [x] Agricultural Lands Stewardship
- [x] Agricultural Water Use Efficiency
- [x] Conjunctive Management and Groundwater Storage
- [ ] Conveyance - Delta, Regional/Local
- [ ] Desalination - Brackish & Seawater
- [ ] Drinking Water Treatment and Distribution
- [ ] Economic Incentives
- [x] Ecosystem Restoration
- [ ] Flood Risk Management
- [ ] Forest Management
- [x] Groundwater/Aquifer Remediation
- [x] Land Use Planning & Management
- [ ] Pollution Prevention
- [ ] Precipitation Enhancement
- [x] Recharge Areas Protection
- [ ] Recycled Municipal Water
- [ ] Salt & Salinity Management
- [ ] Surface Storage - CALFED
- [ ] Surface Storage - Regional/Local
- [ ] System Reoperation
- [ ] Urban Runoff Management
- [ ] Urban Water Use Efficiency
- [x] Water Transfers
- [x] Water-Dependent Recreation

☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 63

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)

Project Name: SHEEP CREEK WASH STORM WATER RETENTION

Project Sponsor: PHELAN PINON HILLS COMMUNITY SERVICES DISTRICT

If Joint Project, Other Partners: POTENTIALLY SAN BERNARDINO FLOOD CONTROL

Project Website (if available):

Project Contact Person:	Phone	FAX	Email
DON BARTZ	7608681212	7608682323	DBARTZ@PPHCSD.ORG

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

CONCEPTUAL

Project Description (1 -2 sentences):

STORM WATER CAPTURE

Project Integration (Describe how the project does or could integrate with other projects in the Region):

POTENTIAL JOINT VENTURE W/ SAN BERNARDINO COUNTY FLOOD CONTROL

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Project Location

Descriptive (Description of property location etc.):

VACANT LAND W/ CREOSOTE VEGETATION & JOSHUA TREES / EXISTING BORROW PIT

Latitude/Longitude - info available at: http://geocoder.us/	Lat:	Long:
	N 34° 26.70	W 117° 36.70

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate): Estimated Cost:	<$100K	$100K - $1M	$1M - $10M	>$10M
	☐	☐	☑	☐

Project Status (Check all that apply):	Conceptual	In-Design	Ready to Implement	CEQA Complete	CEQA N/A
	☑	☐	☐	☐	☐

Estimated Year of Completion: 2020

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☒ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☒ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):* YES	Multi-benefit Y/N: YES		
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☒	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☒	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☒	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☒	☐	9. Improve stormwater management throughout the Plan area.
☐	☒	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☒	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☒	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☒	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☒	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☒	6. Prevent land subsidence throughout the Region.

Statewide Priorities

- [X] Drought Preparedness
- [X] Use and Reuse Water More Efficiently
- [X] Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
- [ ] Expand Environmental Stewardship
- [X] Practice Integrated Flood Management
- [X] Protect Surface and Groundwater Quality
- [ ] Improve Tribal Water and Natural Resources
- [ ] Ensure Equitable Distribution of Benefits

Program Preferences

- [ ] Include Regional Projects or Programs
- [ ] Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
- [ ] Effectively Resolve Significant Water-Related Conflicts within or between Regions
- [ ] Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
- [X] Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
- [ ] Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies

- [ ] Agricultural Lands Stewardship
- [ ] Agricultural Water Use Efficiency
- [X] Conjunctive Management and Groundwater Storage
- [ ] Conveyance - Delta, Regional/Local
- [ ] Desalination - Brackish & Seawater
- [ ] Drinking Water Treatment and Distribution
- [ ] Economic Incentives
- [X] Ecosystem Restoration
- [X] Flood Risk Management
- [ ] Forest Management
- [X] Groundwater/Aquifer Remediation
- [ ] Land Use Planning & Management
- [ ] Matching Water Quality to Water Use
- [X] Pollution Prevention
- [X] Precipitation Enhancement
- [X] Recharge Areas Protection
- [ ] Recycled Municipal Water
- [ ] Salt & Salinity Management
- [ ] Surface Storage - CALFED
- [ ] Surface Storage - Regional/Local
- [ ] System Reoperation
- [ ] Urban Runoff Management
- [ ] Urban Water Use Efficiency
- [ ] Water Transfers
- [ ] Water-Dependent Recreation
- [X] Watershed Management

Project No. 64

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:	Silver Lakes Association Stormwater Debris - retention basin, Buckthorn Wash at Mountain Springs Road				
Project Sponsor:	Silver Lakes Association				
If Joint Project, Other Partners:	Helendale Community Services District				
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Michael Bennett - GM	760-245-1606		mbennett@silverlakesassociation.com		
Project Description					
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)					
Conceptual					
Project Description (1 -2 sentences):					
Design and construction of a reinforced concrete storm water debris interceptor where Buckthorn Wash bisects the Silver Lakes Golf Course. Approx size(LWD): 60'x 10'x 6'					
Project Integration (Describe how the project does or could integrate with other projects in the Region):					
This debris interceptor would reduce damage to Golf Course and reduce sediment and debris flowing into a proposed off river retention-percolation basin at Helendale Rd.					
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):					
Project Location					
Descriptive (Description of property location etc.):					
100' east of Mountain Springs Road overpass at Buckthorn Wash, Helendale, CA					
Latitude/Longitude - info available at: http://geocoder.us/	Lat: 34,45', 16.06" N		Long: 117, 20' 48.79" W		
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K X	$100K - $1M ☐	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual XX	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:					

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*				
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*	YES	Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*				
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
XX	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
XX	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	X	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
XX ☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
X ☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
X ☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	XX ☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
X ☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
X ☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 65

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

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General Information (Required)					
Project Name:	State Water Project Utilization & Efficiency Strategy				
Project Sponsor:	Mojave Water Agency				
If Joint Project, Other Partners:	Other State Water Contractors; other water agencies				
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Kathy Cortner	760-946-7000				

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Concept; Program

Project Description (1 -2 sentences):

Conceptual program with an overall goal to make the best use of the Region's State Water Project resources for maximum benefit to the Region. This would be an ongoing program with many possible elements and would explore a variety of opportunities to achieve the goal, including transfers, exchanges, purchases and sales of SWP water in concert with conjuctive use, groundwater and surface water storage programs, etc.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

The program could be integrated with many planned or existing water supply projects in the region, particularly local groundwater storage infrastructure, and could also be integrated with other IRWM regions' programs.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Project Location

Descriptive (Description of property location etc.):

Mojave IRWM Region, other IRWM regions with access to SWP water.

Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:	

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Ongoing				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF	
DACs Involvement *Y/N:*	No			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*	No			
Stormwater: *Reduction in Flood Damage (Y/N):*	No	Multi-benefit Y/N:	No	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*	No			
Environmental Stewardship/Public Awareness *Direct Benefits:*	No			
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☑	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☑	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities

- [x] Drought Preparedness
- [ ] Use and Reuse Water More Efficiently
- [ ] Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
- [ ] Expand Environmental Stewardship
- [ ] Practice Integrated Flood Management
- [ ] Protect Surface and Groundwater Quality
- [ ] Improve Tribal Water and Natural Resources
- [x] Ensure Equitable Distribution of Benefits

Program Preferences

- [x] Include Regional Projects or Programs
- [x] Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
- [x] Effectively Resolve Significant Water-Related Conflicts within or between Regions
- [x] Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
- [ ] Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
- [ ] Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies

- [ ] Agricultural Lands Stewardship
- [ ] Agricultural Water Use Efficiency
- [x] Conjunctive Management and Groundwater Storage
- [x] Conveyance - Delta, Regional/Local
- [ ] Desalination - Brackish & Seawater
- [ ] Drinking Water Treatment and Distribution
- [ ] Economic Incentives
- [ ] Ecosystem Restoration
- [ ] Flood Risk Management
- [ ] Forest Management
- [ ] Groundwater/Aquifer Remediation
- [ ] Land Use Planning & Management
- [ ] Matching Water Quality to Water Use
- [ ] Pollution Prevention
- [ ] Precipitation Enhancement
- [ ] Recharge Areas Protection
- [ ] Recycled Municipal Water
- [ ] Salt & Salinity Management
- [x] Surface Storage - CALFED
- [x] Surface Storage - Regional/Local
- [ ] System Reoperation
- [ ] Urban Runoff Management
- [ ] Urban Water Use Efficiency
- [ ] Water Transfers
- [ ] Water-Dependent Recreation
- [ ] Watershed Management

Project No. 66R

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **September 12, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:	State Water Project Water Treatment Plant in conjunction with R3 project				
Project Sponsor:	Mojave Water Agency				
If Joint Project, Other Partners:					
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Darrell Reynolds	760-946-7023	760-240-2001	dreynolds@mojavewater.org		

Project Description
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)
Conceptual
Project Description (1 -2 sentences):
Construct a Water treatment plant to treat State Water Project Water and deliver directly into the potable R3 water delivery system. This can be done instead of pumping groundwater wells.
Project Integration (Describe how the project does or could integrate with other projects in the Region):
The project would be designed so water can be delivered through the R3 distribution system.
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):
West of hwy 395 near aqueduct or at Deep Creek Turnout.

Project Location				
Descriptive (Description of property location etc.):				
Latitude/Longitude - info available at: http://geocoder.us/	Lat:		Long:	

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☑
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:					

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☑ 1000+ AF
DACs Involvement *Y/N:*			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☑	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 68R

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:	Storm Water Retention and Percolation in Hondo Wash Ruby Wash				
Project Sponsor:	Bighorn Desert View Water Agency and Mojave Water Agency (?) and/or other sponsors (water districts, city's, unincorp. County)				
If Joint Project, Other Partners:					
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Marina West	760-364-2315	760-364-3412	bdvwa2@mindspring.com		
Project Description					
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)					
Conceptual					
Project Description (1 -2 sentences):					
Retain storm flows in Hondo Wash and other drainages in the area to enhance percolation potential into Ames groundwater basin (Pipes Subbasin) and provide a mechanism for flood control that does not currently exist. Includes studies to determine quantities of flow that could be captured annually, engineering feasibility for retention and percolation, and environmental impact overview (Initial Study). Water could be retained behind shallow berms or even dam structures along narrow sections of the wash. Water that is successfully captured and percolated minimizes downstream flood damage from scouring and preserves a resource that is otherwise wasted (flows to dry lake bed for evaporation).					
Project Integration (Describe how the project does or could integrate with other projects in the Region):					
Flood control and rainwater capture and reuse are regional challenges. Project can be integrated with the following projects already proposed, Project Nos. 8, 9, 14, 22, 29, 35, 43, 47, 53, 59, 63, 64, 75, 101 and 103.					
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):					
Conceptual					
Project Location					
Descriptive (Description of property location etc.):					
Along "upper" Hondo Wash above the desert floor where rainfall totals are highest. Concept could be applied to other washes in the water shed (Pipes Wash, Covington Wash, Water Canyon - all in the Morongo Basin. Probably similar areas outside the Morongo Basin).					
Latitude/Longitude - info available at:	http://geocoder.us/	Lat: 34.250787		Long: -116.463356	
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:	est. near $100K	<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	2014-2025				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*	Yes	Multi-benefit Y/N:	Y (?)	
Multi-stakeholder project/regional collaboration *Y/N:*	Y - possibly with similar projects			
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

If 100 AF could be captured and percolated per year that would provide for about 7% of the groundwater resource used by multiple parties under the Ames/Reche Groundwater Management Plan and Stipulated Judgment if that water was otherwise counted as lost due to runoff during high flow storm events.

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☑	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☑	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☑	☐	9. Improve stormwater management throughout the Plan area.
☑	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☑	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☑	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☑	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☑	Practice Integrated Flood Management
☑	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☑	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☑	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☐	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☑	Flood Risk Management	☑	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☑	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 72

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name: Indian Cove Stormwater Capture and Recharge Project					
Project Sponsor: Twentynine Palms Water District/Joshua Basin Water District					
If Joint Project, Other Partners: See Above					
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Tamara Alaniz					
Project Description					
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)					
Conceptual - Stormwater Capture and Recharge					
Project Description (1 -2 sentences):					
The Department of Water Resources has identified the safe yield for the Indian Cove groundwater basin, limiting production to 1,500 acre-feet per year to avoid overdraft. This project could mitigate past over-drafting and prevent future declines in water levels within this shared basin.					
Project Integration (Describe how the project does or could integrate with other projects in the Region):					
This ides stems from a joint discussion between the Twentynine Palms and Joshua Basin Water Districts, in order to recharge the Indian Cove groundwater basin through stormwater capture.					
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):					
Not presently included in adopted plans, but the concept is identified in the 2010 29PWD UWMP					
Project Location					
Descriptive (Description of property location etc.):					
Indian Cove Groundwater Basin, western portion of Twentynine Palms Water District service area and eastern portion of Joshua Basin Water District service area.					
Latitude/Longitude - info available at: http://geocoder.us/	Lat:		Long:		
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☐	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion: 2016-2017					

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☑ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☑ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*	Yes		
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes		
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

Limited flood control benefits

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☑	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☑	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☑	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☑	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 73

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name: Indian Cove Stormwater Capture and Recharge Project					
Project Sponsor: Twentynine Palms Water District/Joshua Basin Water District					
If Joint Project, Other Partners: See Above					
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Tamara Alaniz	760-367-7546		talaniz@29palmswater.org		
Project Description					
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)					
Conceptual - Stormwater Capture and Recharge					
Project Description (1 -2 sentences):					
The Department of Water Resources has identified the safe yield for the Indian Cove groundwater basin, limiting production to 1,500 acre-feet per year to avoid overdraft. This project could mitigate past over-drafting and prevent future declines in water levels within this shared basin.					
Project Integration (Describe how the project does or could integrate with other projects in the Region):					
This ides stems from a joint discussion between the Twentynine Palms and Joshua Basin Water Districts, in order to recharge the Indian Cove groundwater basin through stormwater capture.					
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):					
Not presently included in adopted plans, but the concept is identified in the 2010 29PWD UWMP					
Project Location					
Descriptive (Description of property location etc.):					
Indian Cove Groundwater Basin, western portion of Twentynine Palms Water District service area and eastern portion of Joshua Basin Water District service area.					
Latitude/Longitude - info available at: http://geocoder.us/	Lat:		Long:		
Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☑	>$10M ☐
Project Status (Check all that apply):		Conceptual ☐	In-Design ☑	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion: 2016-2017					

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☑ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

Limited flood control benefits

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☑	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☑	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☑	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☑	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☑	Protect Surface and Groundwater Quality
☑	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☑	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☑	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☑	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☑	Urban Water Use Efficiency
☑	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☑	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 74R

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Water Infrastructure Restoration Program: Pipeline Installation/Replacement Project		
Project Sponsor:	Bighorn-Desert View Water Agency		
If Joint Project, Other Partners:			
Project Website (if available):			
Project Contact Person:	Phone	FAX	Email
Marina West	760-364-2315	760-364-3412	bdvwa2@mindspring.com

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Conceptual from BDVWA 2007 Water Master Plan

Project Description (1 -2 sentences):

The existing BDVWA infrastructure has deficiencies which prevent it from meeting fire flow due to heavy reliance on 6-inch water mains and Class B fire hydrants; an inability to refill most reservoirs overnight after a 500-gallons per minute fire; and inefficient operation of two zones (E-2 and E-3) due to the manner in which they were originally constructed. Project would improve pressure, fire protection adn public safety.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

This project could be integrated with the small system reorganization and system-wide improvement projects listed.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

BDVWA Water Master Plan and 2010 Water Infrastructure Restoration Program: …Pipeline Installation/Replacement Project CEQA - Mitigated Negative Declaration certified June 29, 2010.

Project Location

Descriptive (Description of property location etc.):

Mainline "backbone" upgrade from the south end to the north end of the Agency's pressurized water system, upgrade fire hydrants and install additional isolation valves per Agency Master Plan.

Latitude/Longitude - info available at:	http://geocoder.us/	Lat: 34.241801	Long: -116.456263

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☑	>$10M ☐
Project Status (Check all that apply):	CEQA completed 2010, permits may still be required. NEPA may be required	Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☑ N/A ☐
Estimated Year of Completion:	Growth in Agency will dictate necessary completion schedule.				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Yes			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*	possibly			
Climate Change: *Helps assess potential impacts (Y/N):*				
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☑	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☑	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☐	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☐	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☑	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Mojave IRWM Plan
Integrated Regional Water Management Plan

Project No. 82

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)					
Project Name:	Wrightwood Imported Water Project				
Project Sponsor:	Golden State Water Co - Wrightwood				
If Joint Project, Other Partners:					
Project Website (if available):					
Project Contact Person:	Phone	FAX	Email		
Perry Dahlstrom	760-247-3391 ext101		Perry.Dahlstrom@gswater.com		

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

The project includes study, design and facilities.

Project Description (1 -2 sentences):

Install a well near Desert Front Road, including a pump station and transmission main to import water from the lower elevations south of the town into the higher elevations in the north. Includes study, design and facilities.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

During two periods of low precipitation, GSWC had to truck water to the Wrightwood system. Based on analysis of the precipitation and subsequent recharge patterns this conditions will repeat with two consecutive below normal precipitation periods. The system needs a reliable source of supply under all climate conditions and possibly participate in the Mojave Water Agency's Regional Recharge and Recovery Project (R-Cubed).

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Capital Improvement, water reliability, drought reliability

Project Location

Descriptive (Description of property location etc.):

TBD

Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:	

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☑
Project Status (Check all that apply):		Conceptual ☑	In-Design ☑	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	2018				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	No			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*				
Stormwater: *Reduction in Flood Damage (Y/N):*	N	Multi-benefit Y/N:	N	
Multi-stakeholder project/regional collaboration *Y/N:*	Yes			
Climate Change: *Helps assess potential impacts (Y/N):*	Yes			
Environmental Stewardship/Public Awareness *Direct Benefits:*				
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☑	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☑	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☑	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☑	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☑	9. Improve stormwater management throughout the Plan area.
☐	☑	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☑	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☑	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☑	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☑	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☑	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☑	6. Prevent land subsidence throughout the Region.

Statewide Priorities

- ☐ Drought Preparedness
- ☐ Use and Reuse Water More Efficiently
- ☐ Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
- ☐ Expand Environmental Stewardship
- ☐ Practice Integrated Flood Management
- ☐ Protect Surface and Groundwater Quality
- ☐ Improve Tribal Water and Natural Resources
- ☐ Ensure Equitable Distribution of Benefits

Program Preferences

- ☐ Include Regional Projects or Programs
- ☐ Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
- ☐ Effectively Resolve Significant Water-Related Conflicts within or between Regions
- ☐ Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
- ☐ Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
- ☐ Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies

- ☐ Agricultural Lands Stewardship
- ☐ Agricultural Water Use Efficiency
- ☐ Conjunctive Management and Groundwater Storage
- ☐ Conveyance - Delta, Regional/Local
- ☐ Desalination - Brackish & Seawater
- ☐ Drinking Water Treatment and Distribution
- ☐ Economic Incentives
- ☐ Ecosystem Restoration
- ☐ Flood Risk Management
- ☐ Forest Management
- ☐ Groundwater/Aquifer Remediation
- ☐ Land Use Planning & Management
- ☐ Matching Water Quality to Water Use
- ☐ Pollution Prevention
- ☐ Precipitation Enhancement
- ☐ Recharge Areas Protection
- ☐ Recycled Municipal Water
- ☐ Salt & Salinity Management
- ☐ Surface Storage - CALFED
- ☐ Surface Storage - Regional/Local
- ☐ System Reoperation
- ☐ Urban Runoff Management
- ☐ Urban Water Use Efficiency
- ☐ Water Transfers
- ☐ Water-Dependent Recreation
- ☐ Watershed Management

Project No. 86

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Alta Loma Reservoir Replacement		
Project Sponsor:	Hi-Desert Water District		
If Joint Project, Other Partners:	N/A		
Project Website (if available):	N		
Project Contact Person:	Phone	FAX	Email
Mark Ban	(760) 365-7412	(760) 365-0599	markb@hdwd.com

Project Description
Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)
Water Infrastructure Improvement
Project Description (1 -2 sentences):
Replace current 1 MG welded steel reservoir that is deficient in capacity by 250,000 gallons with a new 2 MG reservoir.
Project Integration (Describe how the project does or could integrate with other projects in the Region):
N/A
Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):
Captial Improvement Plan (2007 Water System Master Plan)

Project Location
Descriptive (Description of property location etc.):
On Sage Ave, approx. 1,000 ft. north of Kismet Dr.

Latitude/Longitude - info available at:	http://geocoder.us/	Lat:	34°05'24.81"N	Long:	116°25'23.04"W

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☐	$1M - $10M ☑	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	2016-17				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Y			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*	N/A			
Stormwater: *Reduction in Flood Damage (Y/N):*	N/A	Multi-benefit Y/N:	N	
Multi-stakeholder project/regional collaboration *Y/N:*	N			
Climate Change: *Helps assess potential impacts (Y/N):*	N			
Environmental Stewardship/Public Awareness *Direct Benefits:*	N/A	N/A	N/A	
Other: *(Describe X amount of benefit)*				

Increase of 1 MG in water storage capacity to ensure adequate emergency storage (current 250k deficit).

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☐	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☑	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☐	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☑	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☐	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☐	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☐	Drought Preparedness
☐	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☐	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
☐	Effectively Resolve Significant Water-Related Conflicts within or between Regions
☐	Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program
☑	Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the Region
☐	Effectively Integrate Water Management with Land Use Planning

CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
☐	Agricultural Water Use Efficiency	☐	Precipitation Enhancement
☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
☐	Desalination - Brackish & Seawater	☐	Salt & Salinity Management
☑	Drinking Water Treatment and Distribution	☐	Surface Storage - CALFED
☐	Economic Incentives	☐	Surface Storage - Regional/Local
☐	Ecosystem Restoration	☑	System Reoperation
☐	Flood Risk Management	☐	Urban Runoff Management
☐	Forest Management	☐	Urban Water Use Efficiency
☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☐	Watershed Management

Project No. 1014

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	Water University		
Project Sponsor:	MWA/AWAC		
If Joint Project, Other Partners:	Mojave Water Agency, Alliance for Water Awareness and Conservation, Baja Sub-Advisory Committee, Joshua Basin Water District		
Project Website (if available):	www.mojavewater.org		
Project Contact Person:	Phone	FAX	Email
Nicholas Schneider	760-946-7038		nschneider@mojavewater.org

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Implementable program

Project Description (1 -2 sentences):

The Water University Program is a comprehensive educationa and outreach program targeting teachers, real estate professionals, the business community, as well as the general public. This four-component program would offer curriculum for teachers to use in their classrooms for use in science and social studies classes. The second education component targest Fire Departments with education materials and presentations for greater water efficiencies. The third component targets businesses and the real estate community with water conservation information including native landscaping tips, and free water savings devices for the home including sprinkler nozzes, shower heads, etc. The fourth componet targests irrigation supervisors and contractors by offering a certificate program in water efficiency. This component would include regular workshops and education materials. The final component is aimed at homeowners to better educate them on water conservation. This component includes an Annual Water Expo with demonstrations, information, workshops, and free giveaways including moisture meters, nozzles, showerheads, etc.
- Watershed Educational Awareness - educational and public outreach materials including yearly surveys to encourage a conservation ethic based on basin-wide understanding of the role and value of water and the effects of personal actions on supply and demand.
- Groundwater Education Program - To enhance the education of our constituants on where their water comes from and how to protect it. This program will teach residentail and commercial users of water how we can maintain our groundwater levels.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

This project would help provide further support toexisting education programs in the region, and reach out to new groups including teachers, landscape professionals, and fire department personnel. Project 30, 78, and 79. Also pulling ideas from 39, 40 and 99.(Joshua Basin's Project Submittals)

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Project Location

Descriptive (Description of property location etc.):

The entire Mojave Water Agency boundaries.

Latitude/Longitude - info available at:	http://geocoder.us/	Lat:		Long:	

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:		<$100K ☐	$100K - $1M ☑	$1M - $10M ☐	>$10M ☐
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	This would be an ongoing project based on funding availability.				

Project Benefits			
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☑ 100-1000AF	☐ 1000+ AF
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF
DACs Involvement *Y/N:*	Yes		
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*			
Stormwater: *Reduction in Flood Damage (Y/N):*		Multi-benefit Y/N:	
Multi-stakeholder project/regional collaboration *Y/N:*			
Climate Change: *Helps assess potential impacts (Y/N):*			
Environmental Stewardship/Public Awareness *Direct Benefits:*			
Other: *(Describe X amount of benefit)*			

A greater educated public will result in lower per capita consumption.

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☑	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☐	☐	9. Improve stormwater management throughout the Plan area.
☐	☑	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☐	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
☐	☐	13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.
☐	☐	14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.
☐	☑	4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.
☐	☐	5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.
☑	☐	12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.
☐	☑	6. Prevent land subsidence throughout the Region.

Statewide Priorities	
☑	Drought Preparedness
☑	Use and Reuse Water More Efficiently
☐	Climate Change Response Actions (Adaptation to Climate Change, Reduction of Greenhouse Gas Emissions, Reduce Energy Consumption)
☑	Expand Environmental Stewardship
☐	Practice Integrated Flood Management
☐	Protect Surface and Groundwater Quality
☐	Improve Tribal Water and Natural Resources
☐	Ensure Equitable Distribution of Benefits

Program Preferences	
☐	Include Regional Projects or Programs
☐	Effectively Integrate Water Management Programs and Projects within a Hydrologic Region Identified in the CA Water Plan; the RWQCB Region or Subdivision; or Other Region or Sub-Region Specifically Identified by DWR
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CA Water Plan - Resource Management Strategies			
☐	Agricultural Lands Stewardship	☐	Pollution Prevention
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☐	Conjunctive Management and Groundwater Storage	☐	Recharge Areas Protection
☐	Conveyance - Delta, Regional/Local	☐	Recycled Municipal Water
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☐	Flood Risk Management	☐	Urban Runoff Management
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☐	Groundwater/Aquifer Remediation	☐	Water Transfers
☐	Land Use Planning & Management	☐	Water-Dependent Recreation
☐	Matching Water Quality to Water Use	☑	Watershed Management

Project No. 1015

Mojave IRWM Plan
Integrated Regional Water Management Plan

Mojave Integrated Regional Water Management Plan

Project Identification - Short Form

Note: This two page project identification short form gathers the minimum amount of information required to submit a project for consideration in the IRWM Plan. More information may be required at a later date. This form should be submitted via email or mail BY **August 1, 2013** to comments@mywaterplan.com.

General Information (Required)			
Project Name:	San Bernardino County Flood Control District (SBCFCD) Integrated Flood Projects		
Project Sponsor:	San Bernardino County Flood Control District (SBCFCD)		
If Joint Project, Other Partners:			
Project Website (if available):	NA		
Project Contact Person:	Phone	FAX	Email
Harold Zamora	(909) 387-8120	(909) 387-7801	hzamora@dpw.sbcounty.gov

Project Description

Project Type (e.g. Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program)

Construction of six (6) dention/recharge basins through out Region.

Project Description (1 -2 sentences):

Locations in the Region are: 1. Oak Hills Basin: The design of the proposed basin will include multiple features such as: inlet and outlet structures; channels and/or closed conduits; transition structures; headwalls and wingwalls, and basin embankments. Additionally, access roadways along tops of the embankments and around the basin, and access ramps to the basin floor. 2. Tussing - Juniper Basin: Tussing-Juniper Basin is a regional detention facility in accordance with the Apple Valley Master Plan of Drainage. It is located in the Town of Apple Valley area. 3. Donnell Basin: Donnell Basin is a regional detention facility in accordance with the Twentynine Palms Master Plan of Drainage. The project will include the re-construction of existing inlet and outlet channels, basin embankments, basin outlets - emergency spillway and Reinforced Concrete Box (RCB), construction of drainage inlets, access roads 20 feet wide on top of embankments and around the basin, and access ramps 20 feet wide. 4. Senca/Bus Barn Basin: Seneca/Bus Barn Basin was identified in the Victorville Master Plan of Drainage (MPD) as a priority facility for flood protection, water quality and water conservation for the High Desert area. The Basin will be earthen bottom and will include inlet, outlet and transition structures, channels and/or closed conduits, transition structures, wingwalls, headwalls, cut-off walls, basin embankments, emergency spillway, access roadways along tops of the embankments and around the basins and access ramps to the basin floor. 5. Mesa Linda Basin: Mesa Linda Basin was identified in the Victorville Master Plan of Drainage (MPD) as a priority facility for flood protection, water quality and water conservation for the High Desert area. The Basin will be earthen bottom as described previously. 6. Amethyst Basin / Oro Grande Wash: Amethyst Basin is located in the City of Victorville entirely within the Oro Grande Wash. The proposed basin and emergency spillway are designed to meet 100-year and 1000-year flows respectively per District standards. The Basin will be earthen bottomas described previously.

Project Integration (Describe how the project does or could integrate with other projects in the Region):

Projects that were integrated into this project include original project nos. 108, 110, 111, 112, 113, and 114 - all sponsored by the SBC FCD. Bus Barn Basin is an element of an overall project that consists of the construction of three storm water detention basins: a primary basin, Amethyst to be constructed in 2014 , Mesa Linda Basin and Bus Barn Basin that will be phased in at a later date. Seneca Basin is an opportunity for water recharge.

Project Source (Cite Plan(s) to which the project belongs [e.g., Watershed Master Plans, Capital Improvement Plans]):

Victorville Master Plan of Drainage (MPD)

Project Location

Descriptive (Description of property location etc.):

Various locations in the Region.

Latitude/Longitude - info available at:	http://geocoder.us/	Lat: 34.3867	Long: -117.3747

Estimated Capital Costs: (Note estimated cost, if known OR check rough estimate):					
Estimated Cost:	Rough Estimates	<$100K ☐	$100K - $1M ☐	$1M - $10M ☐	>$10M ☑
Project Status (Check all that apply):		Conceptual ☑	In-Design ☐	Ready to Implement ☐	CEQA Complete ☐ N/A ☐
Estimated Year of Completion:	Outside 10 year CIP program due to funding availability				

Project Benefits				
Water Demand: *Water Savings/Demand Reduction (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Water Supply: *New Supply Created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Recycled Water: *New RW Supply created (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
Groundwater: *Reduction in overdraft/increase in recharge (AFY)* (Check one)	☐ 1-100 AF	☐ 100-1000AF	☐ 1000+ AF	
DACs Involvement *Y/N:*	Y (downstream area of the basin)			
Public Access, Open Space, Habitat, Recreation (*acres created/restored):*	55 acres			
Stormwater: *Reduction in Flood Damage (Y/N):*	area of the basin)	Multi-benefit Y/N:		
Multi-stakeholder project/regional collaboration *Y/N:*	Y			
Climate Change: *Helps assess potential impacts (Y/N):*	N			
Environmental Stewardship/Public Awareness *Direct Benefits:*	N			
Other: *(Describe X amount of benefit)*				

Project Criteria

Please review the project against the IRWM Plan Objectives, Statewide Priorities, Program Preferences, and California Water Plan Resource Management Strategies and place a check in the box if the project meets the criteria.

IRWM Plan Objectives Met

Prim.	Second.	
☐	☐	1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.
☐	☐	3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.
☑	☐	7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.
☐	☐	8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.
☑	☐	9. Improve stormwater management throughout the Plan area.
☐	☐	2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.
☐	☑	10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.
☐	☐	11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.
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